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ABSTRACT

This biannual statistical abstract of the higher education system in Israel provides updated, comprehensive, detailed data as well as a chapter summarizing and analyzing the main findings using international comparisons. Chapter 1 contains the summary of findings. Some of the key findings are: (1) most undergraduates are holders of Israeli matriculation certificates; (2) the proportions of non-Jews and of Jews of Asian and African origin attending institutions of higher education is significantly lower than their share of the 18-year-old population; (3) the total number of higher education students in 1992-93 was 99,800; (4) 73 percent of students in 1992-93 were undergraduates; (5) 55.2 percent of students in 1992-93 were women; and (6) the transition rate of master's students going on to doctorates was 30 percent. Chapter 2 contains data on the potential for and access to undergraduate study. Chapter 3 contains data on students in higher education. Chapter 4 covers the progression of studies at universities. Chapter 5 describes recipients of degrees. Chapter 6 contains data on higher education staff. Chapter 7 contains financial and physical information on institutions. Chapter 8 contains data on inputs and outputs of university research. Chapter 9 looks at Israeli students and degree recipients abroad. Appended are a brief outline of the higher education system and technical details. Many tables and figures present the data in detail. (JB)

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Council for Higher Education
Planning and Budgeting Committee

The Higher Education System In Israel

Statistical Abstract and Analysis

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The Higher Education System In Israel

Statistical Abstract and Analysis

Shlomo Herskovic

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Foreword

The Planning and Budgeting Committee of the Council for Higher Education publishes a biannual statistical abstract on the higher education system in Israel. The publication is intended to provide the public with updated, comprehensive, detailed, and reliable data on the various aspects and characteristics of the higher education system.

In the most recent edition of the publication, some basic changes were made in the format. Unlike previous editions, which were made up of statistical tables arranged by topic, the most recent edition also included a chapter summarizing and analyzing the main findings, using international comparisons. The positive responses to this edition encouraged us to further improve the new format in the current edition, and make it the permanent format of the publication. This change, and the centrality of the summary chapter, are expressed in the new title of the publication, **The Higher Education System in Israel — Trends and Developments**.

The current edition is significantly expanded from the previous one. Among other changes worth noting: the addition of two new chapters, one on the inputs and outputs of university research and the other on Israeli students abroad; an expanded chapter on the educational process, from matriculation to Ph.D.; and the inclusion of new data on topics such as the "national expenditure on higher education", fellowships for graduate and post-doctoral students, and academic staff by field, age, and sex. In addition, the summary chapter in this edition makes greater use of international comparisons and cross-references. Finally, a particular effort was made to integrate data on universities with data on non-university institutions of higher education, treating all institutions of higher education as a single integrated system. In this, the English edition, we have also included a short general description of the higher education system in Israel in Appendix A, which is intended to help the foreign reader understand the material presented herein.

The large quantity of statistical material presented herein was compiled in close cooperation with many institutions, foremost among them the Central Bureau of Statistics and the institutions of higher education. We would like to extend special thanks to Mr. Chanan Zakai, Mr. Israel Leibner, Ms. Shula Kamir, and their staff at the Central Bureau of Statistics, who helped greatly in preparing this publication, and who are continually working to expand, deepen, and improve the base of statistical data on higher education in Israel. In addition, we are indebted to the National Center for Testing and Evaluation and the Open University, who prepared special data on their activities for this publication, and to Ms. Cynthia Holme of the Universities Statistical Record of the U.K., who provided us with special tabulations of Israeli students and Ph.D. recipients in the U.K.

Most of all, we would like to thank Mr. Shlomo Herskovic, in charge of data and indicators, who edited this publication in cooperation with the other members of the PBC staff.

Gury Zilkha
Director General

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Chapter 1

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1. Introduction

In this chapter, we summarize and highlight the primary findings of the detailed tables presented in the following chapters. We attempt to bring together those findings and trends which characterize and distinguish the higher education system in Israel, while emphasizing the situation in the past few years, as well as new data items that have been incorporated in the statistical framework on Israeli higher education since the previous edition of this publication was issued. Most of the data presented herein is based on surveys of the Israeli Central Bureau of Statistics.

To facilitate the evaluation of the status of higher education in Israel from a broader perspective, we have included international comparisons with a group of developed countries, made up, in general, of the following eight countries: Italy, the United States, West Germany (hereinafter, "Germany"), the Netherlands (hereinafter, "Holland"), the United Kingdom (hereinafter, "the U.K."), Japan, France, and Sweden. Where not indicated otherwise, data on these countries was taken from two recent publications of the Organization of Economic Cooperation and Development (OECD): *Education at a Glance — OECD Indicators, Paris, 1993; Education in OECD Countries — A Compendium of Statistical Information, Paris, 1993.*

The following survey includes many cross-references to graphs and tables. The graphs appear in the body of the survey, as do the tables which start with the number 1. Tables that start with a number greater than 1 appear later in the report, in the appropriate chapter. For example, table 2.10 appears in Chapter 2 of the report.

2. The Potential for and Accessibility to Undergraduate Studies

a. Students entering undergraduate studies in institutions of higher education can be classified in three categories: 1) Those who have completed their secondary studies in Israel and have received an Israeli matriculation certificate; 2) Israelis who have not obtained a matriculation certificate, or those with low achievement levels in high school who complete their studies, and frequently their matriculation examinations* as well, in a pre-academic preparatory course under the auspices of an institution of higher education or a regional college; or 3) new immigrants whose preparation for academic studies was completed abroad.

Holders of matriculation certificates

b. The primary source of undergraduates are holders of Israeli matriculation certificates (hereinafter, "matriculants"). From the mid-1980's, the number of new matriculants increased by about 57%, from approximately 23,200 in 1984/85 to 36,400 in 1992/93. The proportion of matriculants among 18-year-olds in the population also increased in this period, from 32.4% in 1984/85 to approximately 37.7% in 1992/93 (see Figure 1.1). This increase in the number of matriculants, as well as in their proportion among 18-year-olds, results from two trends:

- An increase in the number of 18-year-olds in the population, from approximately 71,700 in 1984/85 to 96,600 in 1992/93, an increase of 34.7%;
- An increase in the number of secondary school pupils in the twelfth grade studying for matriculation relative to the number of 18-year-olds, from 55.6% in 1984/85 to 62.2% in 1992/93. During this period, the number of twelfth-grade pupils in matriculation preparatory tracks increased by about 50.6%, reaching approximately 60,100 in 1992/93 (see Table 2.1).

* There is a certain overlap, therefore, between this category and the first category.

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It should be added that according to an up-to-date population projection, recently conducted by the Central Bureau of Statistics,* it appears that the 18-year-old population will continue to increase in the coming years, although at a slower pace than the steep increase of the early 1990's. The number of 18-year-olds is projected to reach 106,000 by the year 2000. These data, therefore, indicate a continuing increase in the number of new matriculants into the second half of this decade.

c. The overwhelming majority of matriculants (approximately 85% in recent years) are "internal" matriculants (those who completed twelfth grade and took the matriculation examination within the framework of a secondary school under the control of the Ministry of Education and Culture), who successfully passed the matriculation examinations upon completion of their secondary studies. The remainder are either "internal" matriculants who completed their secondary studies previously but only became eligible for the matriculation certificate at a later date (more than 4,000 such pupils per year in recent years), and pupils who were prepared for the matriculation examinations through "external" frameworks (approximately 1,100 per year in recent years).

Among the internal matriculants in Hebrew education, women make up about 56%, a figure which has remained stable since the mid-1980's. In Arab education, the proportion of women increased from approximately 45% in 1984/85 to 51% in 1990/91.** In this context, it is interesting to note that the proportion of women in the 18-year-old population is about 49%. Approximately 80% of the matriculants in Hebrew education studied in the general track, while the proportion studying in the general track in Arab education was generally above 90% of the matriculants.

Data on the population groups and continent of origin of the internal matriculants are displayed in Table 1.1 below. Almost 90% of the matriculants in 1984/85 and 1990/91 were Jews. Among the Jewish matriculants, the distribution by continent of origin changed with time. The proportion of second-generation Israelis increased from 28.9% in 1984/85 to 37.2% in 1990/91, with a corresponding decrease in matriculants who were born abroad and/or whose fathers were born abroad. The table also shows that:

- The proportions of non-Jews, and of Jews of Asian and African origin, among matriculants are significantly lower than their share of the 18-year-old population.
- Over time, there was a recognizable improvement in the proportion of Jews of Asian and African origin among matriculants relative to their proportion in the 18-year-old population. Among non-Jews, however, no significant change appeared during the above period. See Table 2.2.

Pre-academic preparatory programs

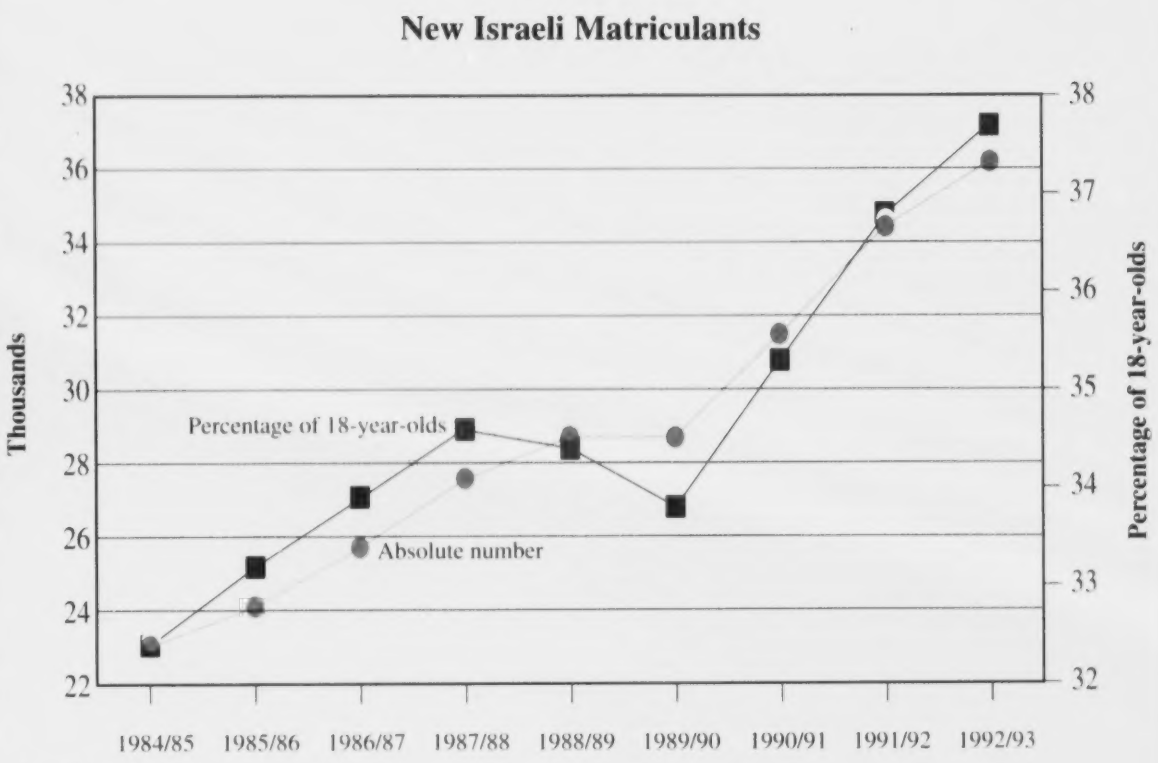
d. Another important source of potential students are those who complete pre-academic preparatory programs. These programs offer a second chance for young people who want to enroll in an institution of higher education but who lack the matriculation certificate or who received poor grades in secondary school. These programs take place under the auspices of an institution of higher education or regional college.

e. The number of students enrolled in pre-academic preparatory programs increased rapidly from 3,500 in 1984/85 to 7,700 in 1991/92, an annual growth rate of 11.9%. In 1992/93, the numbers reached 7,800, an

* The calculation, conducted by the Planning and Budgeting Committee, was done according to Forecast 2 in the Central Bureau of Statistics publication *Population Forecast for Israel through 2005*, Special Publications Series no. 913, Jerusalem, 1992/1993.

** 1990/91 is the last year for which there are data of the Central Bureau of Statistics on matriculants and their demographic characteristics.

Figure 1.1



See Table 2.1.

increase of only 1.6% over 1991/92. Most of the growth since 1984/85 has occurred in programs at regional colleges. The proportion of academic preparatory students who are studying at regional colleges increased from 32% in 1984/85 to 51.5% in 1992/93. The number of students studying in preparatory programs at universities fluctuated from 2,200 to 2,500 during the above period, and the proportion of these students fell from 63.3% in 1984/85 to only 32% in 1992/93. The remaining students studied in pre-academic preparatory programs at teacher training colleges. See Table 2.3.

f. About half of the students in pre-academic preparatory programs are of Asian or African origin, and about two-thirds of the students are classified as "worthy of advancement", according to their socio-economic status. This classification entitles them to public assistance for tuition fees and living expenses, as well as priority in obtaining lodging in dormitories. About 70% of all the pupils in pre-academic preparatory programs in 1992/93 did not have a matriculation certificate when they entered the program. Some of these pupils fulfill the requirements to obtain a matriculation certificate as "external" pupils or as "internal" resit examinees. In some preparatory programs at universities, special tracks are also offered which, if successfully completed (usually in about a year), substitute for the matriculation certificate for obtaining admission to that university. Students who already held a matriculation certificate when they entered the preparatory course (about 30%) took supplementary and refresher courses to improve the results of their matriculation examination and thus enhance their chances for admission to an institute of higher education in their desired field. See Table 2.3.

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Table 1.1

Distribution of Internal Matriculants and 18-year-old Population, by Population Group and Continent of Origin 1984/85, 1990/91 (percentages)

Population group and origin[1]	1984/1985			1990/91		
	Matriculants	18-year-olds	Equality Index[2]	Matriculants	18-year-olds	Equality Index[2]
Total	100.0	100.0	1.00	100.0	100.0	1.00
Population group						
Jews	88.4	77.1	1.15	89.1	77.2	1.15
Non-Jews	11.6	22.9	0.51	10.9	22.8	0.48
Continent of origin (Jews)						
Total	100.0	100.0	1.00	100.0	100.0	1.00
Israel	28.9	20.8	1.39	37.2	29.0	1.28
Asia-Africa	37.3	53.7	0.69	33.2	43.0	0.77
Europe-America	33.7	25.6	1.32	29.6	28.0	1.06

1. We assumed that all matriculants in Hebrew education are Jewish and that all matriculants in Arab education are not Jewish. In 1984/85, existing data on matriculants' religion shows that approximately 87.6% of the matriculants were Jewish. This figure is only slightly different from the percentage of matriculants in Hebrew education for that year (88.4%).
2. Calculated using the equation: percentage of matriculants divided by percentage of 18-year-olds.

New immigrants

g. The third source of potential undergraduate students is new immigrants, who received their secondary school education abroad. Some immigrants even began undergraduate studies at a university abroad before coming to Israel. Some immigrants study in pre-academic preparatory programs for new immigrants at universities. Others, primarily those who already began their undergraduate studies abroad, are admitted directly to universities in Israel without studying in a preparatory program.

Pre-academic preparatory programs for immigrants are intended to facilitate the students' successful absorption in universities, as well as their social absorption in Israel. These preparatory programs focus on teaching Hebrew, English, Jewish history, etc. From 1980/81 to 1989/90, the number of immigrants studying in preparatory programs at universities fluctuated between 500 to 750 each year. During this period, most of the students were immigrants from Latin America and Western Europe. Following the wave of immigration from the Soviet Union, the number of immigrant students in preparatory programs in 1990/91 increased by 268% over 1989/90, reaching 2,700. Since then, however, the numbers have rapidly decreased to 2,150 in 1991/92 and 1,200 in 1992/93. See Tables 2.4 and 2.5. In part, this decrease expresses the general decline in immigration from the former Soviet Union in the past few years. However, it appears that part of the decrease also stems from attempts by the institutions to tighten up the entrance requirements for the preparatory programs. In addition, the immigrants themselves appear less inclined to view the preparatory programs as a necessary step towards entrance to a university.

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According to reports by the Students Authority of the Ministry of Immigrant Absorption (the source of data on students in pre-academic preparatory programs for immigrants), the number of immigrant Freshman students totaled 3,400 in 1991/92, and 3,100 in 1992/93, which represents one-sixth of all the Freshman students for those years. According to current projections on immigration from the former Soviet Union, it appears that the proportion of immigrants among Freshman students will drop in the future.

The psychometric examination

h. Until recently, all institutions of higher education (except for the Open University), have required potential undergraduate candidates to take a psychometric examination administered by the National Center for Testing and Evaluation. This examination is required in addition to a matriculation certificate (or its equivalent) at a certain minimum level. After a rapid increase of about 40% from 1989 to 1992 in the number of individuals taking this examination for the first time, the number of examinees fell in 1993 to 38,700, compared with 41,200 in 1992. This increase up to 1993 and subsequent decrease in 1993 can be explained in part by the trend in immigration from the former Soviet Union. If up to 1990, only about 0.4% of the examinations were administered in Russian, at the peak of the Soviet immigration in 1991, the proportion of Russian-language examinations reached 11.4%. This proportion fell to 8.9% in 1992 and 7.9% in 1993.

The increase and subsequent decrease in the number of examinees can also be partially explained by an increase in the number of candidates who took the examination immediately after high school, before their army service. In the past, more candidates took the examination closer to the time when they applied to the institution of higher education. The proportion of examinees under the age of 18 has been increasing steadily since 1986, reaching 28.3% in 1993, compared to 21.1% in 1989. This trend probably increased the number of examinees temporarily, for a period of several years, as long as there was still a stock of young people from previous high school graduating classes who continued to take the examination close to the time when they applied to universities. The drop in the number of examinees in 1993 therefore reflects a reduction of this stock. See Table 2.6.

After extensive discussions, some institutions of higher education agreed to remove the psychometric examination as an admission requirement, starting in 1994/95, under specific conditions and in specific fields. It is still early to know where this process will lead, and how this will affect the psychometric examination's present status as a critical juncture on the path to a higher education.

Undergraduate candidates

i. The final stage in the procedure leading to admission at an institution of higher education is applying for admission at the institution(s) where he or she would like to study. Acceptance at an institution of higher education, up to now, has depended on matriculation certificate grades and the results of the psychometric examination. Data on candidates for admission are available only for the universities.

After a decade in which the number of undergraduate candidates remained stable at about 25,000 per year, the numbers began to rise in 1991/92 and 1992/93, reaching 27,800 and 29,500 respectively. Undoubtedly, immigration from the former Soviet Union contributed significantly to this increase, probably accounting for most if not all of the increase that occurred in the past two years.

The stability in the numbers of veteran Israeli undergraduate candidates is surprising in view of the continual increase in the number of new matriculants, as described above. The reasons for this stability are not sufficiently clear. It probably points to increasing self-screening among candidates, due to improved information available on the admission criteria to particular universities. Instead of applying

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to universities, more potential candidates may be applying to other institutions of higher education or to post-secondary institutions, where their chances of admission are greater. Later in this chapter, we present data on the increased percentages of candidates who are accepted and studying in universities (see the next section), as well as data on the significantly improved completion and drop-out rates for undergraduates (see Section 4). These data support the above hypothesis, since they indicate that during the 1980s, candidates' and students' suitability for university studies improved. Any other explanation for the above trends does not account for the puzzling lack of increase in candidates.

j. As for the results of applications, the percentage of candidates admitted to universities and commencing studies has been increasing since the mid-1980s, while the percentage of rejected candidates has been decreasing. In 1984/85, 63.5% of candidates were accepted, and 43.8% started studying in universities; in 1991/92, however, 79% were accepted and 61.5% started studying. In 1992/93, the percentages dropped slightly to 77.9% accepted and 59.8% studying, but these results were still higher than those in 1990/91. See Figure 1.2 and Table 2.7.

k. Table 1.2 displays candidates' demand for admission to various fields of study, versus the number of candidates actually admitted in these fields in 1990/91 and 1992/93. Compared with 1990/91, demand for admission in 1992/93 in the humanities, social sciences, and law increased significantly, while demand for admission in the experimental sciences (medicine, mathematics, natural sciences, agriculture, and engineering) generally fell, in absolute terms. The demand for admission to law programs almost doubled between 1990/91 and 1992/93, apparently due to decisions that were made concerning the expansion of legal studies at universities and the parallel closing of the private, non-academic law schools which had been set up adjunct to some of the universities. A large increase in demand was recorded for social sciences (23.6%), humanities (12.4%), and business and management (9.5%). In contrast, the demand for experimental science fields dropped by percentages ranging from 1% for para-medical professions to 15% for medicine. The only exception was mathematics, for which the demand increased by almost 11%.
The number of candidates who commenced study increased in most fields, particularly in law (106%), social sciences (25%), mathematics (25%), humanities (22%), and business and management (16%). The increase in the number of students entering a program in law resulted from the opening of a new law faculty at Haifa University in 1991/92 and expansion of the existing faculties at the Hebrew University, Tel Aviv University, and Bar-Ilan University. The number of students entering the physical sciences, engineering, and agriculture decreased, by 14%, 4%, and 4% respectively.
The above changes in demand and in the number of candidates commencing studies caused certain changes in the candidate-freshman student ratio, which may indicate excess demand in certain fields. This ratio is particularly high in business and management studies, law, medicine and para-medical studies. In each one of these fields, the ratio decreased between 1990/91 and 1992/93. This ratio also decreased in most other fields, except for the physical sciences and engineering and architecture, for which the ratio did not change during this period. See Table 2.9, as well as Table 2.10, which is a new table dealing with the demand for studies at the level of the individual subject. Table 2.11, also new, describes the demographic features of candidates to universities in 1989/90, which at present is the only year in the last decade for which such data exists.

New entrants to undergraduate studies

l. A common measure used to evaluate the accessibility of higher education is the number of new students enrolling in undergraduate studies compared to the size of the relevant age-cohort. In most developed countries,

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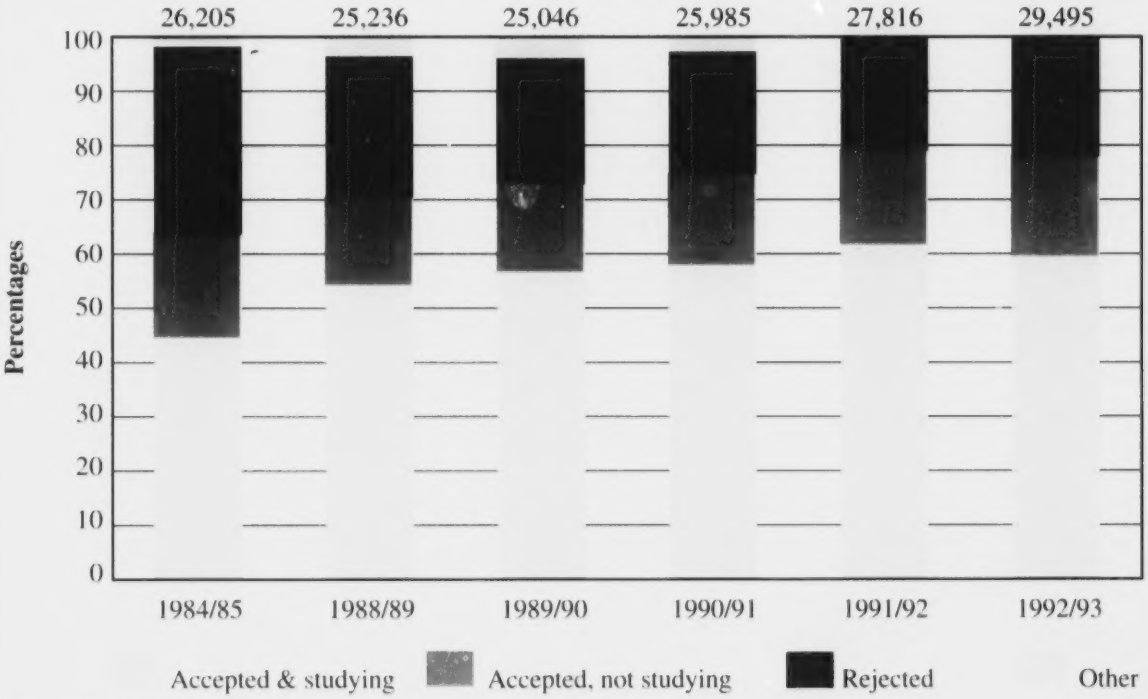
Figure 1.2

Candidates for Undergraduate Studies at Universities, by Results of Application



See Table 2.7.

the age for starting undergraduate studies is generally between 18 and 20. In Israel, however, because of the compulsory military service, this age is higher – 20 to 24 (see Table 3.12). In Israel, the ratio of Freshman students to the relevant age-cohort increased from 23% in 1989/90 to 26.4% in 1991/92.

Figure 1.3 shows that the participation rate of freshman students in Israeli institutions of higher education at the beginning of the 1990's falls in the middle of the rates for developed countries, between Japan and France. The percentages of Freshman students in the U.S., Italy, and Germany were significantly higher than in Israel. However, this gap is reduced when one considers the percentage of students who complete a bachelor's degree among their average age-cohort (see Figure 1.15 below).

Most developed countries have a non-academic tertiary education system offering an alternative to higher education for those who have completed secondary school and wish to continue their education. Non-academic tertiary institutions generally specialize in vocational training such as teaching, nursing, applied engineering, etc. Figure 1.3 shows that countries such as Holland and Sweden strongly emphasize non-academic tertiary studies, whereas Italy does not have a non-academic tertiary education system at all, and therefore all studies after high school take place at institutions of higher education. When the number of students entering non-academic tertiary institutions is added to the number of those entering institutions of higher education, Israel moves up to third place, after the U.S. and Japan. For an additional indication of accessibility, see also section 4.b below, which describes the progression of groups of matriculants from high school to studies in Israeli universities.

Table 1.2

Candidates and Undergraduate Students by Field of Study 1990/91, 1992/93

First-priority field of study	1990/1991 Candidates	1990/1991 Freshman students	1990/1991 Candidate / student ratio	1992/93 Candidates	1992/93 Freshman students	1992/93 Candidate / student ratio
Total	25,985	15,006	1.7	29,495	17,640	1.7
Humanities	5,678	4,027	1.4	6,383	4,918	1.3
Social sciences	5,777	3,614	1.6	7,141	4,516	1.6
Business and management	1,603	433	3.7	1,756	501	3.5
Law	1,554	410	3.8	3,051	846	3.6
Medicine	1,352	357	3.8	1,149	374	3.1
Paramedical studies	2,208	713	3.1	2,181	765	2.9
Mathematics, statistics, and computer sciences	1,624	1,162	1.4	1,800	1,447	1.2
Physical sciences	731	682	1.1	676	597	1.1
Biological sciences	924	609	1.5	796	615	1.3
Agriculture	351	196	1.8	312	198	1.6
Engineering and architecture	3,311	2,051	1.6	3,192	1,980	1.6
Other and unknown	872	752	1.2	1,058	883	1.2

See Table 2.9.

3. Students in Institutions of Higher Education

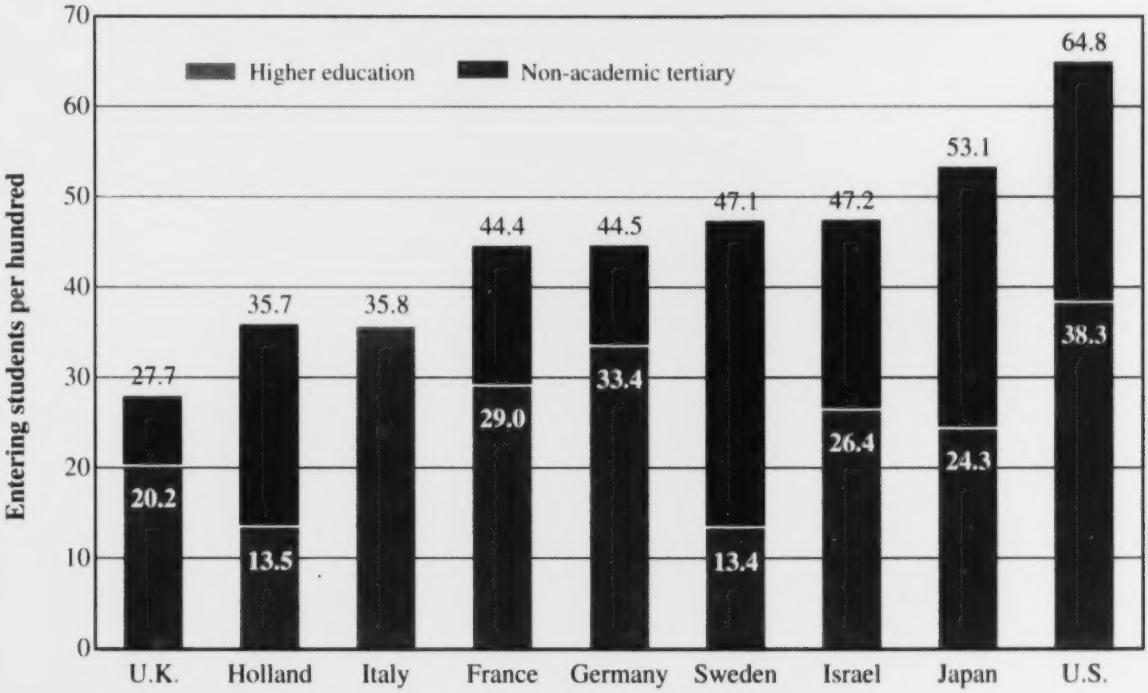
a. The total number of students in all institutions of higher education, including universities (except for the Open University), academic teacher-training colleges, and academic tracks at regional colleges and other institutions of higher education, was 99,800 in 1992/93, compared with 91,000 in 1991/92 and 76,100 in 1989/90, thus exhibiting an annual growth rate of 9.5% in the past three years. During the second half of the 1980's, from 1985/86 to 1989/90, the number of students increased at a much slower rate, only 2.7% annually (see Figure 1.4). The main reason for the rapid increase in the number of students since 1990/91 is the increase in the relevant local population. Immigration from the former Soviet Union also contributed significantly to this growth, as mentioned above.

Type of institution, level of degree, and field of study

b. Approximately 73.6% of the students in 1992/93 were undergraduates. Most undergraduate students (about 81%) are enrolled in universities (including regional colleges); the rest are enrolled in teacher-training colleges and other institutions of higher education. Since 1985/86, the annual increase in the number of students in teacher-training colleges (10.6%) and in other institutions of higher education (17.6%) has been much higher than the increase in university students (4.0%). As a result, the proportion of students in non-university institutions has steadily increased from 11.6%

Figure 1.3

Proportion of Entering Students in Tertiary and Higher Education in the Average Age Cohort — An International Comparison



Source: OECD (see the end of Section 1 above) and PBC, based on data from the Israeli Central Bureau of Statistics.
Note: The data relates to 1991/92.

of all undergraduates in 1985/86 to 19% in 1992/93. This trend will accelerate even more in the coming years, when some of the regional colleges will become independent of their parent universities and receive accreditation as independent institutions of higher education (at present, each regional college operates under the auspices of a parent university, and the college's students are counted as students of that university). See Figure 1.5 and Table 3.1.

c. Studies for advanced degrees (including diplomas) take place only at universities. The total number of graduate students in 1992/93 reached 26,360, which represents 30.7% of all university students, and 26.4% of the students in all institutions of higher education. The composition of graduate students in 1992/93 was as follows: 19,440 were studying for a master's degree; 4,930 were studying for a doctorate; and 1,100 were studying for a diploma, in most cases a teaching certificate. Figure 1.6 shows that the percentage of graduate students among Israeli students is very high relative to other developed countries. A possible explanation is the long period of study typical of graduate studies in Israel, which is apparently more prolonged than in other countries (see Sections 4.i and 4.m below).

Since 1989/90, the number of graduate students has increased by about 8.2% annually, which is a slower rate of growth than that for undergraduate students during the same period (9.9%). This trend represents

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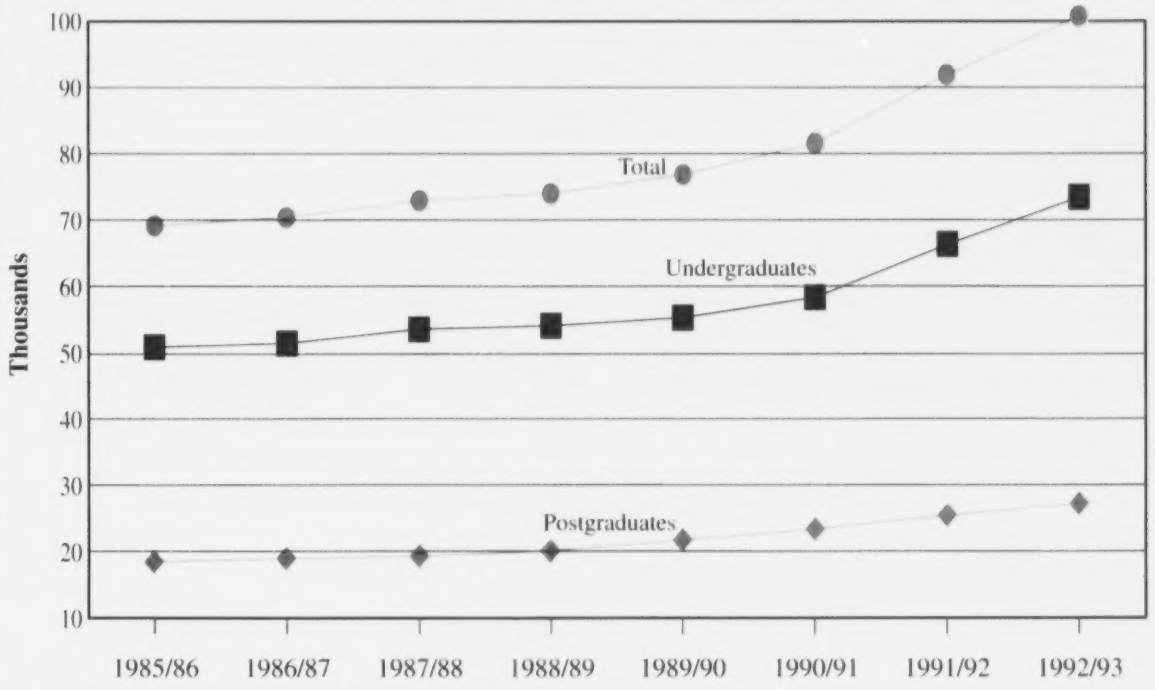
Figure 1.4

Students in Institutions of Higher Education, by Level of Degree



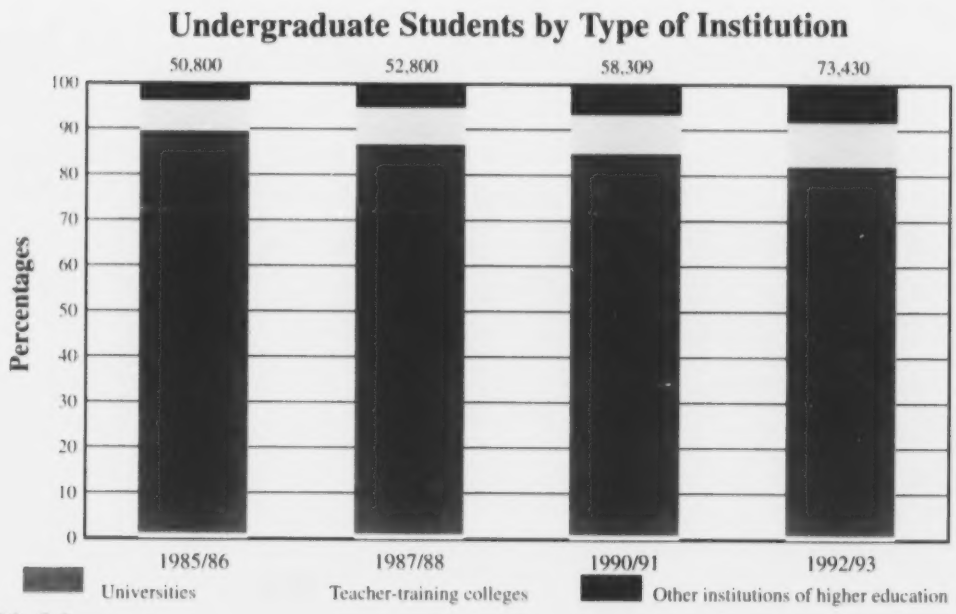
Note: Not including the Open University. See Table 3.1.

a significant departure from the second half of the 1980's, when the number of graduate students increased by 4.6% annually while the number of undergraduates increased by only 2.1% annually. See Table 1.3 below and Tables 3.1 and 3.2.

d. As the level of degree advances, the percentage of students in the experimental fields and mathematics (medicine, mathematics, natural sciences, agriculture, and engineering) also rises. Among undergraduates, 31.4% of students in 1992/93 were in these fields; among master's students, 36.9%; and among doctoral students, 64.8%. Since the mid-1980's, the number of students in the experimental fields (including mathematics) has declined among undergraduates and master's students. The corresponding percentages for undergraduates were 35.4% in 1985/86 and 33.4% in 1989/90, while the percentages for master's students were 41.3% in 1985/86 and 38.8% in 1989/90. For doctoral students, the proportion of those in experimental fields declined similarly until 1989/90; their proportion fell from 66.4% in 1985/86 to 62.5% in 1989/90. However, the proportion rose again in the following years, reaching 64.8% in 1992/93. See Table 1.4.

e. The distribution of undergraduates by field of study has not changed significantly since the beginning of the 1990's, with the exception of the rapid increase in law students (from 2,100 in 1989/90 to 3,600 in 1992/93, an annual increase of 19.7%, compared with a 9.9% overall increase for all fields). Their share of students rose accordingly from 3.8% in 1989/90 to 4.9% in 1992/93. It is also important to note that the share of students in engineering dropped, from 15.6% in 1985/86 to 14.7% in 1989/90 and only 12.7% in 1992/93. Universities naturally differ from other institutions of higher education in their distribution of undergraduate students by field

Figure 1.5



See Table 3.1

of study. At universities, 61.9% of the students in 1992/93 were in the non-experimental fields (humanities, social sciences, and law), while in non-university institutions of higher education, 96.4% of the students were in these fields. In the latter institutions, the greatest proportion of students was concentrated in the field of education (57.5%). See Tables 3.5, 3.7, and 3.15.

f. Students in the social sciences represent the largest proportion of master's students; in 1992/93, approximately 7,400 students were working on master's degrees in this field. The share of master's students in this field has been rising gradually since the mid-1980's. In 1985/86, 32.6% of master's students were in the social science field, while this percentage rose to 36.5% in 1992/93.

For doctoral degrees, the leading field is mathematics and the natural sciences, with 2,200 students in this field in 1992/93, or 45.2% of all doctoral students. The next most popular field for doctoral students is humanities, with approximately 1,200 students in 1992/93. However, the share of doctoral students in the humanities dropped from 25.6% in 1989/90 to 23.6% in 1992/93. See Tables 3.5 and 3.7.

g. Regarding the distribution of students among the universities, Tel Aviv University is the largest university in Israel, with 23,400 students in 1992/93, or 27.6% of all students in Israeli universities. Tel Aviv University is followed by the Hebrew University, with 19,100 students (22.5%); Bar-Ilan University with 13,300 students (15.7%); the Technion, with 10,500 students (12.3%); the University of Haifa, with 9,700 (11.4%); Ben-Gurion University, with 8,200 students (9.7%), and the Weizmann Institute of Science, which is a graduate school only, with 750 students (0.9%). This order of size holds for both undergraduates and master's students. For doctoral students, however, the largest concentration is at the Hebrew University (34.9%), followed by Tel Aviv University (21.7%); the Technion (13%); Bar-Ilan University (11.4%); the Weizmann Institute of Science (10.7%); Ben-Gurion University of the Negev (6.3%); and the University of Haifa (2.4%). See Tables 3.3 and 3.4.

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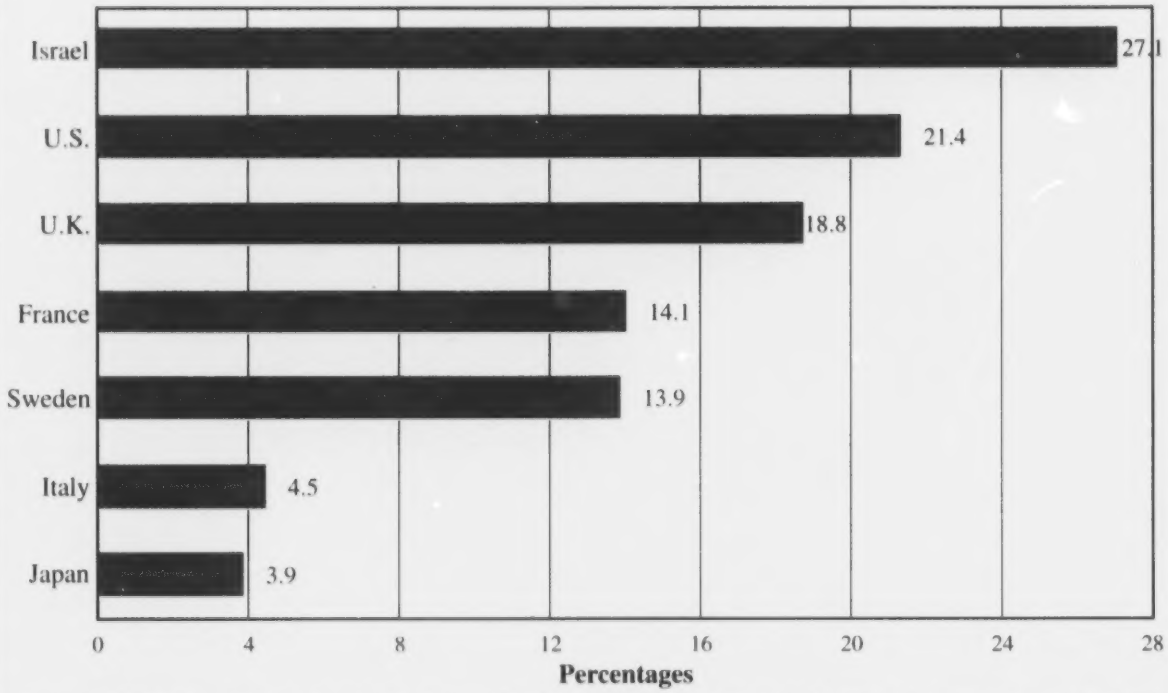
Figure 1.6

Graduate Students as a Percentage of all Higher Education Students an International Comparison



Source: OECD (see end of Section 1 above), UNESCO Statistical Yearbook, and the Israeli Central Bureau of Statistics.

1. The data refer to 1990, except for France (1991) and Israel (1991/92).
2. No comparative figures exist for Germany and Holland, due to the special structure of undergraduate and graduate studies in these countries.

h. From 1989/90 to 1992/93, the overall increase in students, at all degree levels, was dispersed among the various universities. The largest increases occurred at the younger institutions – Bar-Ilan University and the University of Haifa (43% each), and Ben-Gurion University (40%). See Figure 1.7.

Demographic characteristics of students

i. The percentage of women students at institutions of higher education long ago surpassed their percentage in the general population, reaching 55.2% in 1992/93. In that year, women accounted for 56.2% of all undergraduate students, 53.6% of master's degree students, 43.8% of doctoral students, and 74.4% of students in diploma programs, mainly for teaching certificates. The percentage of women students has continued to rise, at all degree levels, in recent years. In 1989/90, for example, women represented 52.5% percent of all students in institutions of higher education, with the breakdown by degree level as follows: bachelor's degree, 53.6%; master's degree, 50.3%; and doctorate, 41.2% (see Tables 3.11, 3.15, and 3.16). The percentage of women in higher education in Israel is one of the highest in the world (see Figure 1.8).

Table 1.3

Students in Institutions of Higher Education, by Level of Degree 1989/90, 1992/93

Level of Degree	1989/90	Percentage	1992/93	Percentage	Annual rate of growth
Total	76,056	100.0	99,790	100.0	9.5
Bachelor's degree	55,246	72.6	73,430	73.6	9.9
Master's degree	16,100	21.2	20,330	20.4	8.1
Doctorate	3,910	5.1	4,930	4.9	8.0
Diploma	800	1.1	1,100	1.1	11.2

See Tables 3.1 and 3.2.

j. Detailed demographic data on students, such as population group, continent of origin, and age, exist only for universities, and such data is available only up to 1989/90. The rest of this paragraph and the two following paragraphs therefore refer only to students in universities. Approximately 94.2% of university students in 1989/90 were Jewish, and approximately 5.8% were non-Jewish, primarily Christian and Muslim Arabs. Among Jewish students, the proportion of Israeli-born students is increasing with time. Among Israeli-born students, the proportion of those with fathers also born in Israel (second-generation Israelis) is increasing as well. In 1980/81, 71.2% of Jewish students were Israeli-born and 11.8% of these had fathers also born in Israel; in 1989/90, the parallel figures were 81% and 26.8%.

During this period, the proportion of Jewish students of Asian and African origin also rose, from 21.3% in 1980/81 to 24.3% in 1989/90. At the same time, the proportion of students of European and American origin fell from 62.8% in 1980/81 to 44.7% in 1989/90. Among Jewish students of Asian and African origin, the share of those born abroad fell steadily in relation to those born in Israel to fathers born in Asian or African countries; in 1980/81, 35.4% of these students were born abroad, while in 1989/90 only 15.9% were born abroad. Among students of European and American origin, the proportion of those born abroad in both 1980/81 and 1989/90 was approximately 31.4%. It should be noted that these data cover the period before the large wave of immigration from the former Soviet Union. It is therefore likely that in contrast to the above trend, the proportion of foreign-born students will increase in the future. See Table 3.10.

k. The participation rate of Jewish students in universities (at all degree levels) in relation to the overall Jewish population aged 20-29 increased from 6.7% in 1980-81 to 8.6% in 1989/90. Among Jewish women in this age group, the participation rate increased by 45% during this period, from 6.5% in 1980/81 to 9.4% in 1989/90. Among Jewish men of this age group, however, the participation rate increased by only 11%, from 7.0% in 1980/81 to 7.8% in 1989/90. As a result, the gap in the participation rate between men and women is continuing to widen. The reason for this trend is not known, and the subject merits in-depth study.

In 1989/90, there were significant gaps in university participation rates among groups of various origins: between those whose fathers were Israeli-born (15% participation) or American- or European-born (15.3%) and those whose fathers were Asian- or African-born (4.2%) or those who themselves were

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Table 1.4

Students in Institutions of Higher Education, by Level of Degree and Field of Study 1989/90 and 1992/93 (percentages)

	Level of degree					
	Bachelor's degree		Master's degree		Doctorate	
Field of study	1989/90	1992/93	1989/90	1992/93	1989/90	1992/93
Total	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	34.3	36.3	24.9	25.5	25.6	23.6
Social sciences	28.5	27.4	35.2	36.5	11.0	10.6
Law	3.8	4.9	1.1	1.1	0.9	1.0
Medicine	5.6	5.2	11.6	10.9	4.6	4.9
Mathematics and natural sciences	11.7	12.6	14.1	13.3	44.1	45.4
Agriculture	1.4	0.9	2.2	2.1	4.2	4.2
Engineering and architecture	14.7	12.7	10.9	10.6	9.6	10.3

See Tables 3.5 and 3.15.

Asian- or African-born (2.4%). However, it is important to note the steady, gradual increase in university participation among Israelis of African- and Asian-born fathers (3% in 1974/75, 3.7% in 1984/85, 4% in 1988/89 and 4.2% in 1989/90). The participation rate for non-Jews in the above age group was 1.7% in 1989/90, compared to 2.1% in 1984/85. See Table 3.9.

1. Because of compulsory military service, commencement of university study in Israel is usually delayed until age 20-21 for women and 21-22 for men. In fact, many young people postpone their studies far beyond the time required by their military service. Students aged 21 or younger represented only 45% of freshman students in 1989/90; 35.5% were aged 22-24; 11.2% were aged 25-29; and the rest were 30 or older (8.3%). The median age was 22.4. As students progress in their studies, their age naturally increases as well. The median age for undergraduate students at universities in 1989/90 was 23.9; for master's students, 29.1; and for doctoral students, 33.5. Regarding age for different fields of study, mathematics and natural science students have a lower median age than students in any other field, at all degree levels. This stems from a number of causes. The low median age for freshman students in these fields (21.5) apparently stems in part from the large percentage of atudaim* studying in these fields. In addition, particularly at the master's degree and doctoral levels, most students in these fields appear to study continuously, without taking time off, and therefore the duration of their studies is shorter. In the humanities, the situation is different; the median age for master's and doctoral students is much higher than for any other field –

* "Atudaim" are young men and women who are enlisted by the Israel Defense Forces in a special program that combines university studies in fields of high military priority with their compulsory military service.

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33.2 at the master's degree level and 39.9 at the doctoral level. A large proportion of these students extend their graduate studies, apparently in order to integrate work outside the university with their studies. See Table 3.12 and the discussion in Sections 4.k and 4.m below.

Students enrolled in the Open University

m. The data presented thus far have not included students enrolled in the Open University, due to the special features which distinguish this institution from other institutions of higher education. The Open University is the only academic institution in Israel based on the distance-learning method. Studies for a bachelor's degree at the Open University differ from other universities in that they are conducted part-time, over a longer time period, and the students are relatively older.

The total number of students enrolled at the Open University in 1992/93 was 19,000, compared to 13,000 in 1989/90, or a 46.4% increase over a three-year period. The augmented tutorials track, introduced in 1991/92, apparently contributed significantly to this growth. The majority of students enrolled in 1992/93 (73.6%), were in the first third of their studies towards a bachelor's degree (equivalent to the first year of full-time studies in a regular university), and 42.4% were new students who had never studied there before. This represents a significant drop from 1989/90, when the comparable figures were 81.2% and 51.2%, respectively. This trend indicates that the Open University has improved its ability to bring students to more advanced stages of their undergraduate studies, and it should be expressed by a significant growth in the number of graduates in the next few years. See Tables 3.13 and 5.10.

Approximately 51% of the students enrolled in 1992/93 were aged 30 or older, and 37.7% were aged 35 or older, while in the regular universities, only 10.8% of undergraduates were aged 30 or older in 1989/90. However, the proportion of younger students at the Open University has been increasing noticeably in the past few years. In 1989/90, 22.8% of the students were under 24 years old; in 1992/93, this proportion reached 28.1%. A significant proportion, therefore, of the Open University's increased student body in recent years (approximately 40%) are students in the normal age group for undergraduates at regular universities.

An increasing proportion of the students at the Open University are studying humanities and social sciences (74.2% in 1989/90 versus 80.4% in 1992/93). As at other institutions of higher education, the majority of the students – 54.7% in 1992/93 – were women. See Table 3.14.

Fellowships

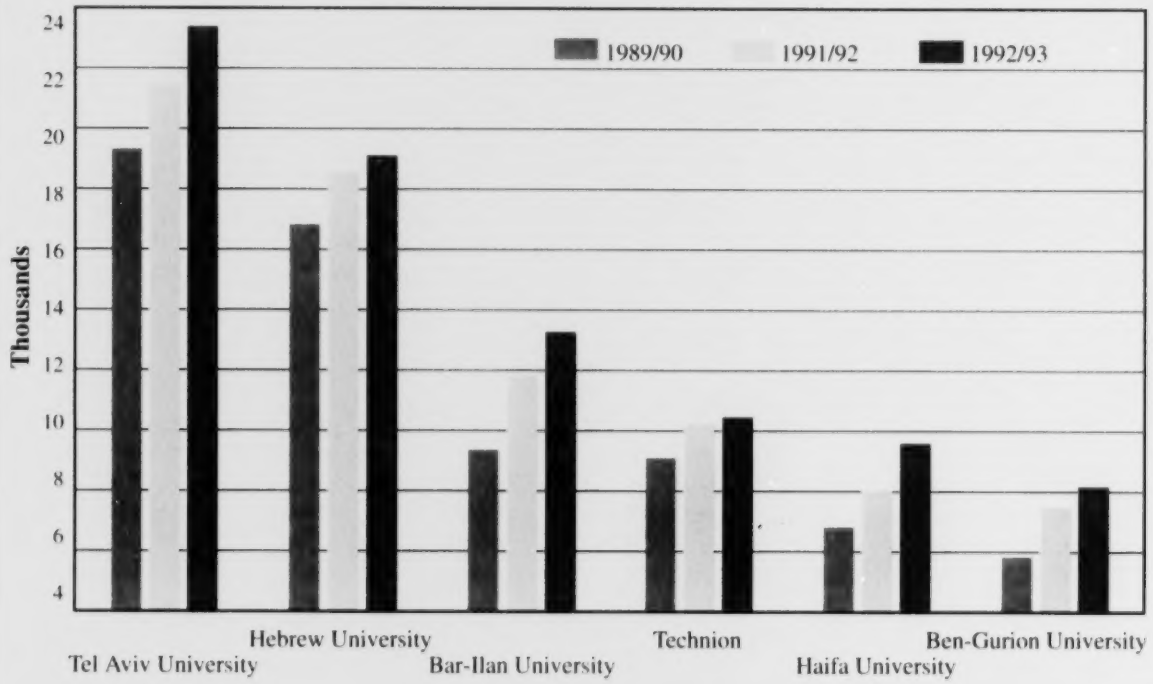
n. We conclude this section on students with a discussion of fellowships for graduate and post-doctoral fellows. In developed countries, fellowships are an established means of encouraging capable students to participate in higher education and to invest most or all of their time in their studies. These fellowships are most widely applied to advanced degrees, since financial difficulties become more serious as students get older.

In the past, the standard practice in Israel was to hire graduate students as teaching and research assistants and as junior academic staff, and the use of fellowships was limited. During the 1980's, however, the number of positions for teaching and research assistants and junior academic staff shrank considerably (see Table 6.3), and the use of fellowships rose correspondingly. In 1986/87, the first year for which comprehensive data on fellowships were compiled, fellowships for graduate degrees equivalent to 2,640 full fellowships were granted. In 1992/93, this number was close to 5,900, representing an increase of 122%. During this period, the number of master's degree and doctoral students increased by 48%.

In 1992/93, the majority of fellowships were granted to master's degree students (53.3%).

Figure 1.7

Students in Universities, by Institution 1989/90, 1991/92, 1992/93



See Table 3.3.
Note: The numbers of students at the Weizmann Institute of Science do not appear in this graph. These figures were 640 in 1989/90, 680 in 1991/92, and 740 in 1992/93.

Relative to the number of students, however, the fellowship rate was one full fellowship for every 6.5 master's degree students, while fellowships were granted to doctoral students at a rate of one for every 1.8 students. See Table 3.19.

o. Another type of fellowship, widely employed in the U.S., is the post-doctoral fellowship, which funds additional research training after a student has received a doctoral degree. This advanced training usually leads into a career as a staff member at an academic institution. In the past, a large share of Israeli Ph.D. recipients who wanted to enter academic careers would travel abroad (usually to the U.S.) to do their post-doctoral training. They would then return to Israel to take up tenured positions as senior staff members in Israeli institutions. On the other hand, very few foreign post-doctoral fellows would come to Israel. Thus the number of post-doctoral fellows in Israel was very low. In 1986/87, which was the first year for which data was compiled on this topic, the number of post-doctoral fellows in Israel was equivalent to 148 full fellowships. In that year, three universities – Tel Aviv University, Bar-Ilan University, and the University of Haifa – did not have any post-doctoral fellows at all. Since that time, however, the situation has turned around considerably, and the number of post-doctoral fellowships reached 520 in 1992/93. Approximately three-fourths of these fellowships were concentrated at

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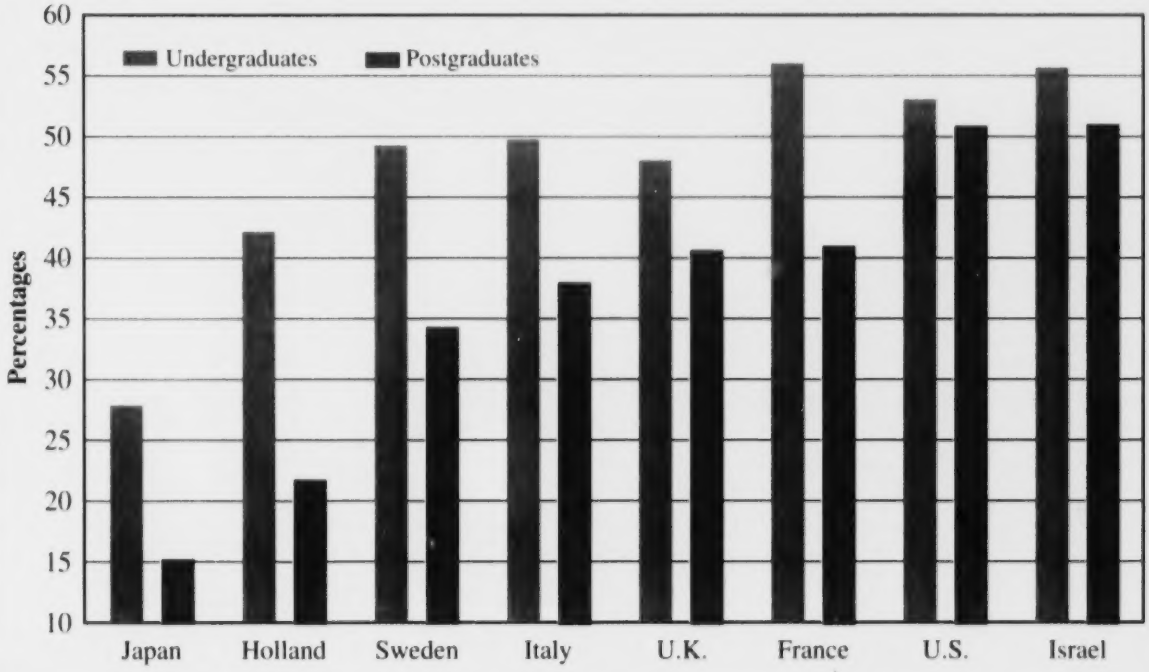
Figure 1.8

Percentage of Women Students in Institutions of Higher Education, by Level of Degree — an International Comparison



Source: OECD (see end of Section 1 above), UNESCO Statistical Yearbook, and the Israeli Central Bureau of Statistics.

1. The data relate to 1990, except for Japan (1989), Sweden and Italy (1991), and Israel (1991/92).
2. No separate figures are available for undergraduate and graduate students in Germany. Women represented 38.3% of all students in higher education in this country.

the Hebrew University, the Technion, and the Weizmann Institute of Science, but the rest were distributed among all the other institutions.

The compilation of data on post-doctoral fellowships, as on graduate fellowships, is only just beginning. There is no comprehensive data on the funding sources for fellowships, on the recipients' country of origin, etc. Thus the following description is only partial. In the past few years, the Planning and Budgeting Committee has set up a program to support post-doctoral fellows. Institutions' own funds, as well as other public and private funding, have also apparently increased recently. These increases in funding from the PBC and other sources have given significant impetus to the increase in post-doctoral fellowships, particularly at institutions which were not previously active in this area.

Most of the fellowship recipients themselves are Israelis, some of whom have already done post-doctoral training abroad. However, a significant number of recipients also arrive from abroad, both from developed countries as well as from Eastern European and Third World countries. Most of the fellowship recipients are doing their post-doctoral training in the physical and biological sciences. In 1990/91, the only year for which data exist on all post-doctoral fellowships by field, approximately 71% were working in the above fields. See Tables 3.19 and 3.20.

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4. The Progression of Studies at Universities

a. Since the previous edition of this publication, the Central Bureau of Statistics has considerably expanded its data on the progression of university studies. The current data enables us to extensively describe and analyze the transitions from one educational stage to the next. We can follow the educational attainments of cohorts of students from the receipt of a matriculation certificate to the receipt of a PhD. We can observe the progression of studies (duration, drop-out and completion rates, etc.) at each academic degree level. Even so, it should be noted that the data cover only university studies in Israel, to the exclusion of studies at non-university institutions of higher education.

It should also be noted that we are not following a particular year of matriculants through the various stages of their higher education, since the database does not yet cover a sufficient period of time to allow for such an analysis. Instead, we are following groups of students who have different features in common depending on the stage of education under consideration, as explained in more detail below.

From matriculant to undergraduate student

b. The first cohort that we will consider is the group of matriculants who completed twelfth grade together. This group also includes resit examinees who earned an internal matriculation certificate after completing twelfth grade. However, the group does not include external matriculants (see the discussion in Section 2.c above). Groups of matriculants who completed twelfth grade in the years 1983/84 to 1985/86 were followed until 1991/92. As mentioned in Section 3.1 above, commencement of university studies in Israel is often postponed beyond the minimum time required by compulsory military service. Figure 1.9 shows this clearly. In the first year after high-school graduation, only 4.6% of an average graduating class started their university studies; in the second year, this figure was 3%. Students who begin university studies immediately after high-school graduation are primarily Arabs, "atudaim"*, and women who obtained exemptions from military service. Beginning in the third year after high school, the numbers of students enrolling in universities increased. The proportion of those beginning university studies by their sixth year out of high school reached 38.7% of the high-school graduating class.**

The graph also highlights differences in the percentage of those starting university and their timing according to sex and religion. Women begin university studies earlier than men, but the gap between them begins to close after the fourth year out of high school. Arabs also begin their university studies at an earlier stage than Jews. After the third year out of high school, however, almost no new Arab students enroll in universities; from the fifth year on, the gap widens between the percentages of Jews and Arabs starting their university studies, as the numbers of Jews continues to increase while the numbers of Arabs remain stable. The percentage of Arabs enrolling in university from the 1985/86 high school graduating class was significantly lower than in earlier years, while the Jews showed no differences in enrollment rates among the three years studied. See Table 4.1.

Percentages of matriculants enrolling in university also varied according to the study

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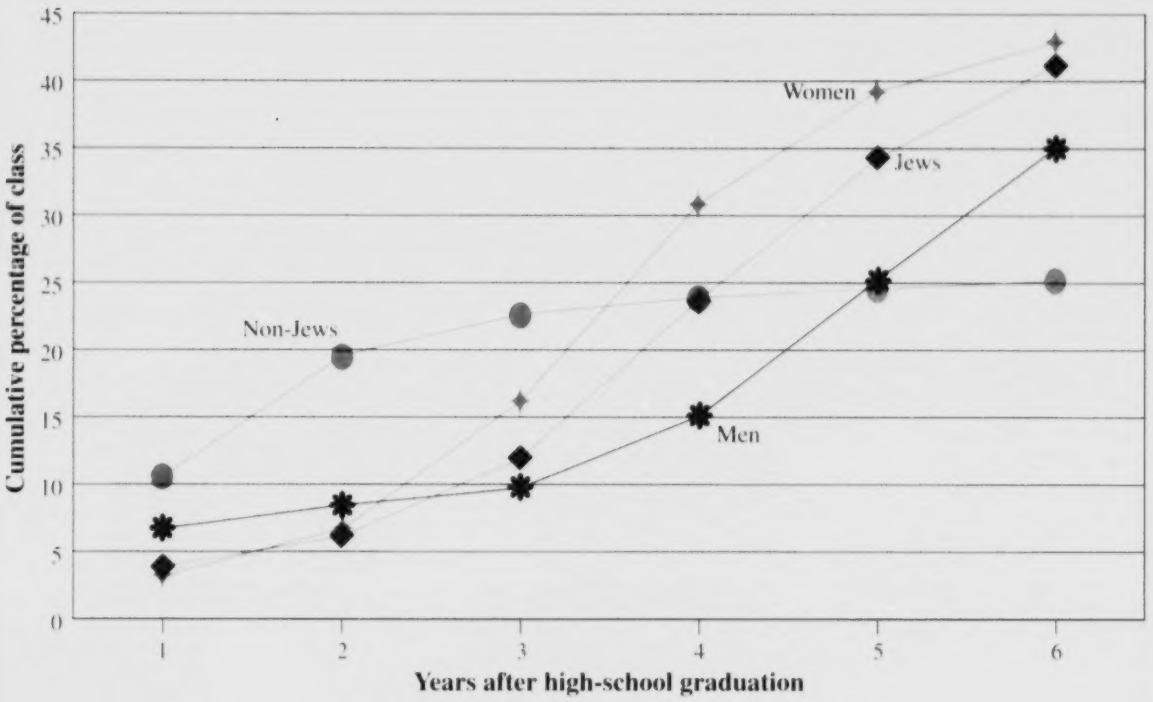
* See footnote in Section 3.1 for a definition of "atudaim".

** The follow-up on the high school graduating class of 1985/86 has only been carried out for six years; therefore, the graph, which shows an average of all three graduating years, ends after six years. However, an examination of the two previous graduating years shows that there are still students beginning university more than six years after high school graduation, although the rate of entrance is lower. For the 1984/85 high school graduating class, a total of 38.7% had started university after six years, and 44.4% after eight years.

Figure 1.9

Cumulative Percentage of Matriculant Groups Commencing University Studies

Average of High School Graduating Classes 1983/84 to 1985/86



track in high school, and according to continent of origin. Six years after completing high school, 43.5% of matriculants from general tracks in high school had enrolled in university. For those in technological tracks, the figure was only 19%. Regarding continent of origin of Jewish matriculants, 46% of second-generation Israelis and 48% of those with fathers born in Europe or America began their university studies within six years after high school. For matriculants whose fathers were born in Asian and African countries, this figure was 31%. Country of origin significantly influenced the university enrollment rates for those in both general and technological tracks in high school. See Table 4.2.

Progression of undergraduate studies

c. We will now shift our focus from groups of matriculants to groups of freshman students at universities. It is important to examine the progression of undergraduate studies, and the percentages of those who complete their degrees versus those who drop out before graduation. The standard time for obtaining an undergraduate degree is three years, with the exception of certain fields, primarily law (three and a half years) and engineering (four years).*

If we take into account that the graduation ceremony usually takes place the year after the graduates actually complete their academic requirements, then a student who received

* The standard length of undergraduate studies at Bar-Ilan University is longer by about half a year than the above, for most fields. This difference is due to the mandatory Jewish studies, which are added to the departments' normal requirements.

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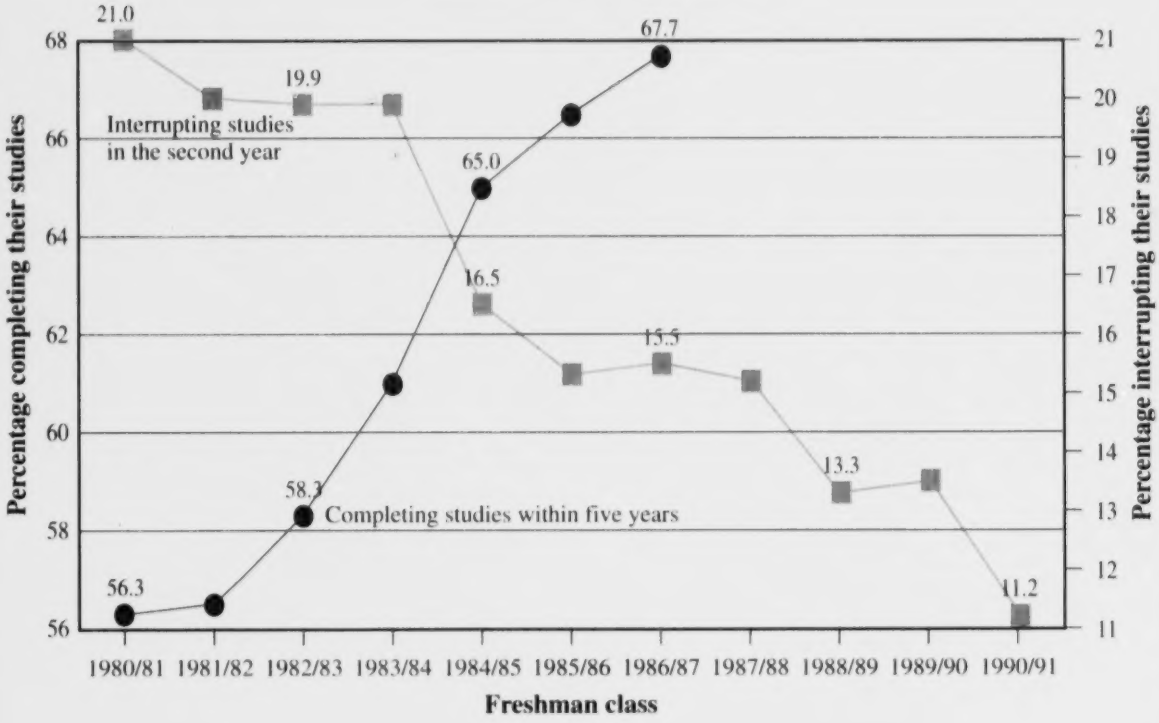
Figure 1.10

Percentage of Students Completing and Interrupting their Studies among Freshman Classes



a bachelor's degree in the fourth year after initial enrollment can be considered to have completed his or her studies in three years. Therefore, in the rest of this section, when we consider the total period of studies, we will subtract one year from the time between initial enrollment and the granting of the degree.

The data indicate that during the 1980's, there was significant improvement in the percentage of students completing their academic requirements within three years (that is, those that received their bachelor's degree within four years). This figure increased from 22.9% of freshman students in 1980/81 to 32.3% in 1988/89. However, most undergraduates extend their studies beyond the standard amount of time (see Table 4.3). Due to this fact, as well as the different standard lengths of studies for various fields mentioned above, we chose the percentage of students completing their studies within five years (that is, receiving their degrees within six years) as the time interval for examining differences over time among the various fields of study and institutions. The percentage of undergraduates completing their studies within five years increased from 56.3% of the freshman class of 1980/81 to 67.7% of the freshman class of 1986/87, which is the last year for which there was a five-year follow-up (see Figure 1.10).

d. Alongside the increased proportion of students completing their degrees, the percentage of undergraduate drop-outs decreased significantly. In 1980/81, almost one-third of the freshman class dropped out before completing their degree; for the freshman classes of the late 1980's, it appears that the drop-out rate will not exceed 20%. Most students who drop out do so during

Table 1.5

Percentage of Students Completing their Undergraduate Studies within Five Years, and Percentage of Undergraduate Students Interrupting their Studies in the Second Year, for Freshman Classes, by Year of Onset of Study and Field of Study

	Freshman Class of:						
	1980/81		1984/85		1986/87		1990/91
Field of study	Graduated	Interrupted studies	Graduated	Interrupted studies	Graduated	Interrupted studies	Interrupted studies
Total	56.3	21.0	64.5	16.5	67.7	15.4	11.2
Humanities	44.0	26.0	51.6	23.2	53.0	24.3	16.5
Social sciences	58.0	21.5	64.6	16.5	70.7	12.8	9.0
Law	73.5	9.8	67.4	12.1	80.2	9.6	1.0
Paramedical studies	68.6	12.1	78.7	10.5	82.9	9.5	10.0
Mathematics and natural sciences	58.2	21.9	68.4	15.9	71.5	13.8	13.0
Agriculture	75.6	11.9	80.5	12.3	76.4	11.0	11.3
Engineering	73.0	8.2	80.0	5.6	81.6	6.7	5.5

See Table 2.9.

the first year, or between the first and second years (see Table 4.5). The percentage of those interrupting their studies in the second year declined from 21% of the 1980/81 freshman class to 11.2% of the 1990/91 freshman class (see Figure 1.10). In the following sections, we examine differences in drop-out tendencies according to various variables, based on the index of those who interrupt their studies in their second year.

e. The percentages of those completing their studies and dropping out vary according to the field in which they began their studies (see Table 1.5). As the table shows, the percentages of those completing their studies and those dropping out have improved for all fields* over time. This is particularly true for fields which, at the beginning of the relevant period, showed low completion rates and relatively high drop-out rates. The most outstanding improvement occurred in the social sciences. For this field, the percentage of students completing their studies in five years rose from 58% of the 1980/81 freshman class to 70.7% of the 1986/87 freshman class. At the same time, the percentage of those interrupting their studies in the second year fell from 21.5% of the 1980/81 freshman class to 12.8% of the 1986/87 freshman class, and 9% of the 1990/91 freshman class. Despite the improvements that occurred over time in the humanities, this field continues to have the lowest completion rate and the highest drop-out rate, and the gap between this field and other fields is still quite wide (see Tables 4.4 and 4.6).

* The relevant field is that in which the student started his or her university studies.

f. Completion and drop-out rates also vary according to the institution where studies are begun, but these gaps were reduced over time, particularly for the percentage of those interrupting their studies in the second year. The percentage of those completing their studies within five years was particularly high at the Technion (77.2% of the 1986/87 freshman class) and relatively low at Bar-Ilan University (57.1%). The percentage of those interrupting their studies in 1990/91 ranged from 5.2% at the Technion to 14.2% at Tel Aviv University. The most outstanding improvement occurred at the University of Haifa, where the completion rate rose from 51.5% for the 1980/81 freshman class to 68.8% of the 1986/87 freshman class. At the same time, the drop-out rate fell from the highest for any institution in 1980/81 (27.1%) to the lowest except for the Technion in 1990/91 (9.9%).

The completion and drop-out rates also vary with sex, religion, country of origin, and age at the time of initial university enrollment. However, data on these variables currently exist only up to the freshman class of 1984/85. See Tables 4.4, 4.6, and 4.7.

It should be noted that available data on the progression of undergraduate studies concern the period before the wave of immigration from the former Soviet Union and the accompanying increase in freshman students that began in 1991/92. It will be interesting to observe if and how these changes will influence the trends described above.

From undergraduate to graduate studies

g. The transition from undergraduate to graduate studies, as might be expected, generally takes place in the first years after receipt of a bachelor's degree. This is in contrast to the transition from matriculation to undergraduate enrollment, where there is often a lengthy gap. However, the transition from undergraduate to graduate studies can also extend over many years. Approximately 18% of those receiving bachelor's degrees began graduate studies at Israeli universities in the same year that they received their degrees.* This represents about half of all the graduates who ultimately go on to study for master's degrees. Up to the third year after graduation, the cumulative percentage of those starting master's degree programs reaches approximately 30% of the graduating class. After this year, the annual number of new graduate students from a given graduating class declines considerably.

For those graduating in 1980/81, for example, 17.8% began graduate studies in that year, 29.3% began graduate studies within 3 years of graduation, and 36.2% began graduate studies within 10 years of graduation. The total percentages of those starting graduate studies, and the timing of starting those studies, have both remained more or less stable over time. See Table 4.8.

h. As we saw above, most graduate students begin their graduate studies within the first three years after receiving their bachelor's degree, including the graduation year itself. Figure 1.11 shows the distribution by undergraduate field of study for the cumulative percentage of those going on to graduate study from the graduating class of 1987/88.** This is the last graduating class for which follow-up was done. The figure highlights the differences between two types of fields: 1) professional fields (such as law, paramedical studies, and engineering) and humanities and social sciences, in which most students terminate their studies with a bachelor's degree; and 2) mathematics, computer sciences, and the experimental sciences, for which more than

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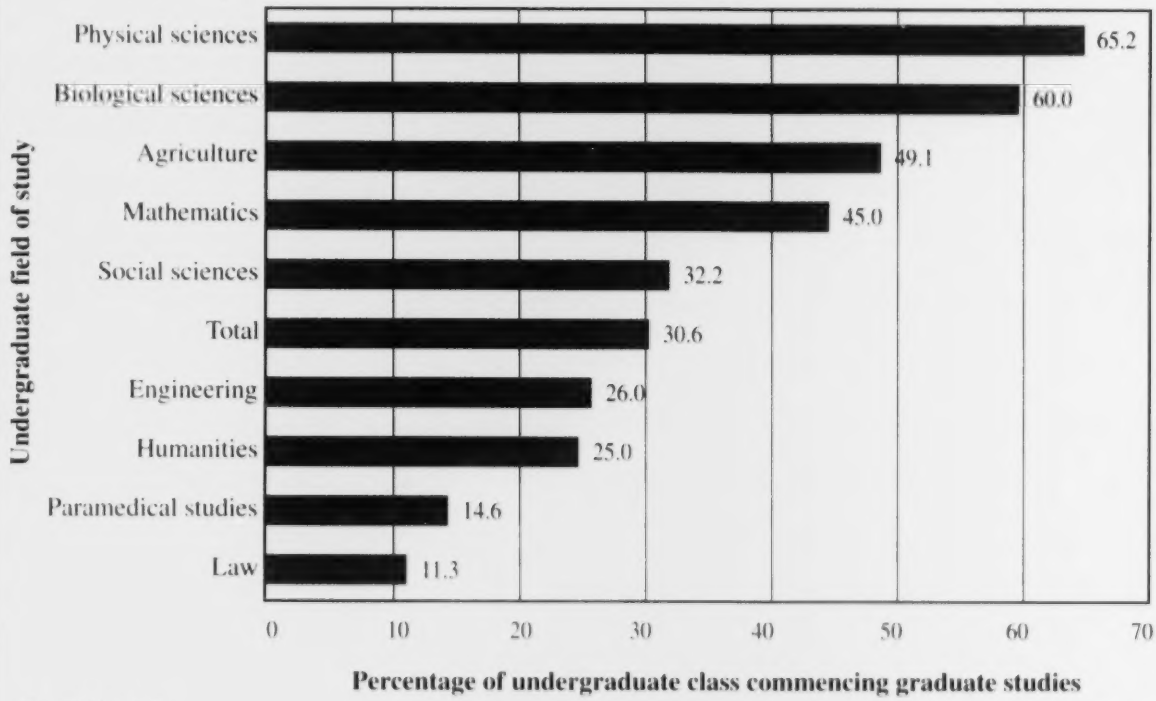
* We explained above that the graduation ceremony, where bachelor's degrees are granted, generally takes place the year after that in which the student actually completed his or her academic requirements for the degree.

** A close examination of Table 4.9 shows that certain changes occurred over time in this index for the various fields of study. However, the 1987/88 graduating class displays the relative positions of the fields of study for all the graduating classes in the 1980's.

Figure 1.11

Percentage of Bachelor's Degree Recipients Commencing Graduate Studies within Three Years of Graduation 1987/88 Graduating Class



See Table 4.9.

half the students go on to graduate studies. Particularly noteworthy is the field of physical sciences, in which 65.2% of those graduating in 1987/88 went on to graduate studies within three years of graduation. Judging by past trends, it appears that the proportion of bachelor's degree recipients going on to graduate studies in this field will eventually exceed 70%. See Table 4.9.

Progression of studies for master's degrees

i. Studies for master's degrees tend to progress slowly, with a significant drop-out rate. The standard length of study for a master's degree in all fields (excluding clinical medicine, which is not covered in this discussion), is two years; if we add the extra year before the student actually receives the degree, then a student should receive his or her master's degree within three years from commencing graduate studies. Table 4.10 shows that only 12-13% of those beginning master's degrees in a given year manage to obtain their degrees within this three-year period. Even after four years of study, or twice the standard length of time, only 36-38% of master's students have obtained their degrees; after six years of study, the figure is approximately 50%.

The percentages of those completing master's degrees are much lower than the comparable figures for undergraduate degrees cited above. Moreover, there is no significant sign of improvement in this percentage over time, as we saw for undergraduate degrees. See Figure 1.12.

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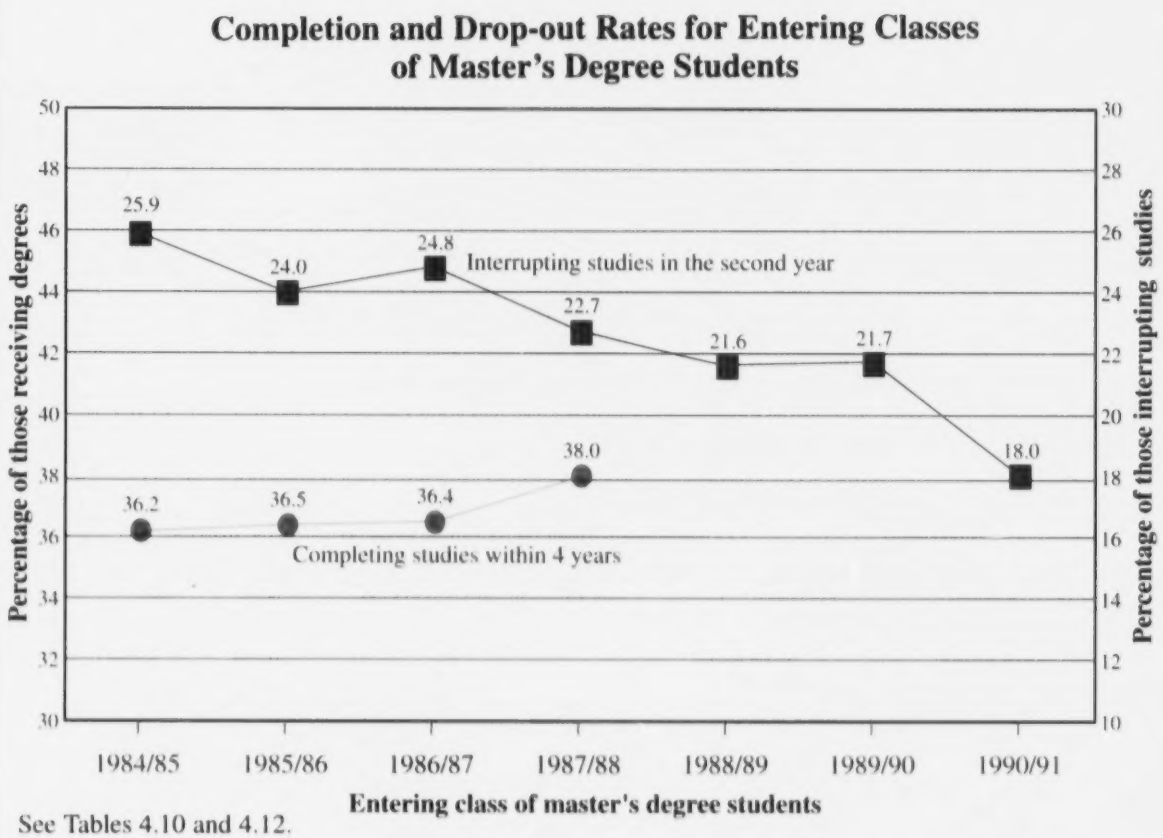
Figure 1.12



See Tables 4.10 and 4.12.

j. The total drop-out rate for master's programs is approximately 40%. About 20-25% of those starting master's programs interrupt their studies by the following year, and the percentage of those leaving their studies continues to increase up to the fifth year after initial enrollment. After the fifth year, the percentage stabilizes and even drops slightly, as the number of students returning after a break of a year or more begins to exceed the number of students who leave their studies. The share of students interrupting their studies in the second year declined over time, from 25.9% of the 1984/85 entering master's class to 18% of the 1990/91 entering master's class (see Figure 1.12). However, there are still no indications that this trend is linked to the percentage of students completing their studies in a given amount of time; it is still early to see whether this trend indicates a comparable reduction in the overall drop-out rate for master's studies. See Table 4.12.

k. To compare completion and drop-out rates among different fields of master's study and institutions, we used the percentage of the entering master's class who completed their studies within four years (received their master's degree within five years); in parallel, we used the percentage of the class who were not studying in their fourth year and who had not received their degree by the end of that year.

Table 1.6 displays the status by field of study for the entering master's classes starting in 1984/85 and 1987/88. In the humanities, law, and paramedical studies, the completion rate is considerably below the average, and the drop-out rate above average. Mathematics and the natural sciences, and agriculture are at the

Table 1.6

Percentage of Entering Master's Class Completing their Studies within Four Years and Absent from Studies in the Fourth Year, by Entering Class Year and Field of Study

	Entering master's degree class of:			
	1984/85		1987/88	
Field of study	Completed studies within 4 years	Absent in fourth year	Completed studies within 4 years	Absent in fourth year
Total	36.2	39.9	38.0	39.0
Humanities	22.4	40.6	22.7	51.4
Social sciences	35.4	38.2	37.9	37.2
Law	10.0	72.9	10.4	58.1
Paramedical studies	30.5	37.9	21.4	45.6
Mathematics and the natural sciences	58.4	31.3	58.3	30.1
Agriculture	50.0	34.9	58.7	25.0
Engineering	39.1	38.3	43.6	31.8

See Tables 4.11 and 4.13.

other end of the spectrum, with completion rates well above the average and drop-out rates below average. The rates for social sciences and engineering fall between these two extremes.

Among institutions, the gaps in both completion and drop-out rates are much less pronounced than the gaps in these rates between various fields of study. One exception is the Weizmann Institute of Science, where the completion rate usually exceeds 80%, and the drop-out rate is usually less than 20%. See Tables 4.11 and 4.13. The fact that every master's student at the Weizmann Institute receives a full fellowship from the time he or she enrolls in the master's program – a situation which does not exist at any other institution – contributes no doubt to the significantly better performance of students at this institution compared with the other institutions measured.

From master's degree to doctorate

1. The transition rate of master's students going on to doctorates is 30%, which is low compared to the transition rate from undergraduate studies to master's studies. This rate did not show any signs of change during the 1980's. A majority of students going on to doctoral studies do so within three years after receiving their master's degree (23%), similar to our findings for students going on from undergraduate to graduate studies. Different fields vary significantly in the percentage of master's degree recipients going on for doctoral degrees. The percentage of those continuing ranges from only 8% for those with master's degrees in the social sciences (including business management) to about half of those with master's degrees in mathematics and the natural sciences. See Tables 4.14 and 4.15.

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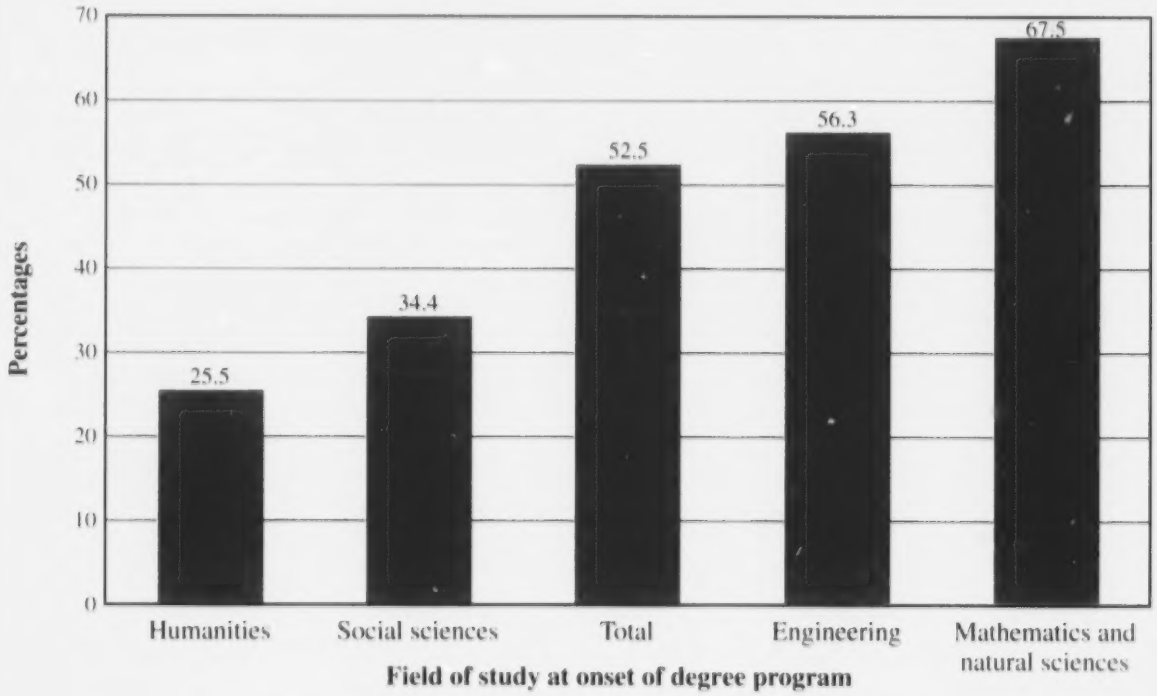
Progression of studies for doctorates

m. Studies for a doctorate in Israel focus on an original research project, directed and guided by one or more senior academic staff members. Thus, there is no standard length of time for completing a doctorate. The length of time depends on the progress of the research and on the requirements of the advisor, as well as the requirements of the department and institution where the degree is undertaken. Follow-up has been done on students enrolling in doctoral programs starting in 1984/85; the maximum follow-up period, therefore, is eight years. Investigation reveals that this period of time is inadequate to draw any definitive conclusions about patterns in the progression of doctoral studies. However, it appears that future comparisons with the completion rates for master's degrees will show that the completion rates are higher for doctoral degrees. This conclusion seems reasonable in light of the drop-out rate for doctoral studies (about 30%), which is significantly lower than that for master's studies (about 40%). See Tables 4.16 and 4.17.

n. Figure 1.13 shows the percentages of the 1984/85 class of doctoral students completing their studies within seven years (that is receiving doctorates within eight years of initial enrollment) for various fields. This graph includes only those fields in which a significant number of students (more than 50) began studying in a doctoral program in that year. As described above for master's degrees, the completion rates for doctoral degrees in the humanities and social sciences

Figure 1.13

Percentage of Students Receiving Doctorates within Seven Years, for the Entering Doctoral Class of 1984/85, by Field



Note: The graph includes those fields in which more than 50 students started doctoral studies in 1984/85.

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are considerably lower than those for the experimental sciences. Even after seven years of study, only 26% of this doctoral class in the humanities completed their degrees, compared with 67.5% of those in mathematics and the natural sciences.

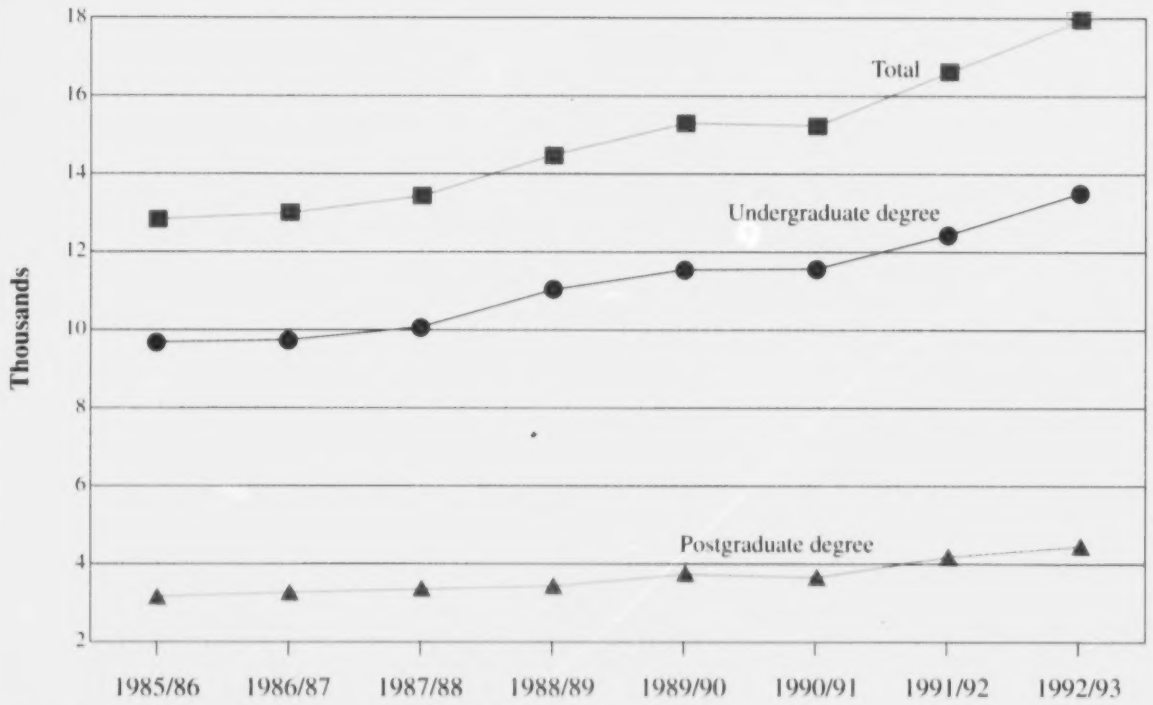
5. Recipients of Degrees from Institutions of Higher Education

a. In 1992/93, a total of 17,930 students were awarded degrees from institutions of higher education (including the Open University). Of this number, 13,500 (75.3%) received bachelor's degrees; 3,150 (17.6%) received master's degrees; 550 (3.1%) received doctoral degrees; and 720 (4.0%) received diplomas, primarily teaching certificates. Most bachelor's degrees were granted by universities (82.5%), while the rest were granted by teacher-training colleges (8.2%), other institutions of higher education (6.3%) and the Open University (3.0%). See Figure 1.14 and Tables 5.1 and 5.2.

b. The completion rate – the ratio of bachelor's-degree recipients to the relevant age cohort in which most students receive bachelor's degrees – serves as a common indicator for international comparisons of higher education systems. In Israel in 1991/92, this figure was 16.6% of an average age cohort of 24- to 29-year-olds in the general population – the age range in which most Israeli university students receive their bachelor's degrees (See Table 5.10). As Figure 1.15 shows, this rate is similar to that in the U.K. and France, but significantly lower than that in the U.S. and Japan.

Figure 1.14

Recipients of Degrees from Institutions of Higher Education, by Level of Degree



Note: Includes the Open University. See Table 5.1.

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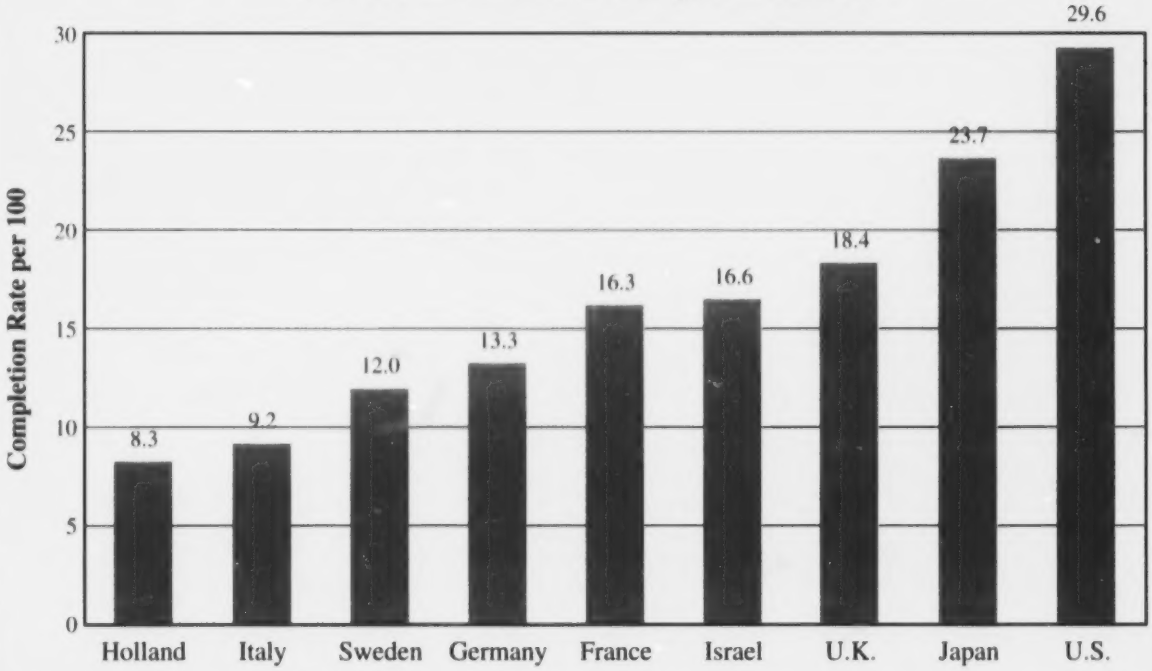
Figure 1.15

Percentage of Undergraduate Degree Recipients in the Average Age Cohort in Israel and Other Developed Countries



Source: OECD (see the end of Section 1 above) and PBC, based on data of the Israeli Central Bureau of Statistics.
Note: The data relate to 1991 (1991/92).

Type of institution, level of degree, and field of study

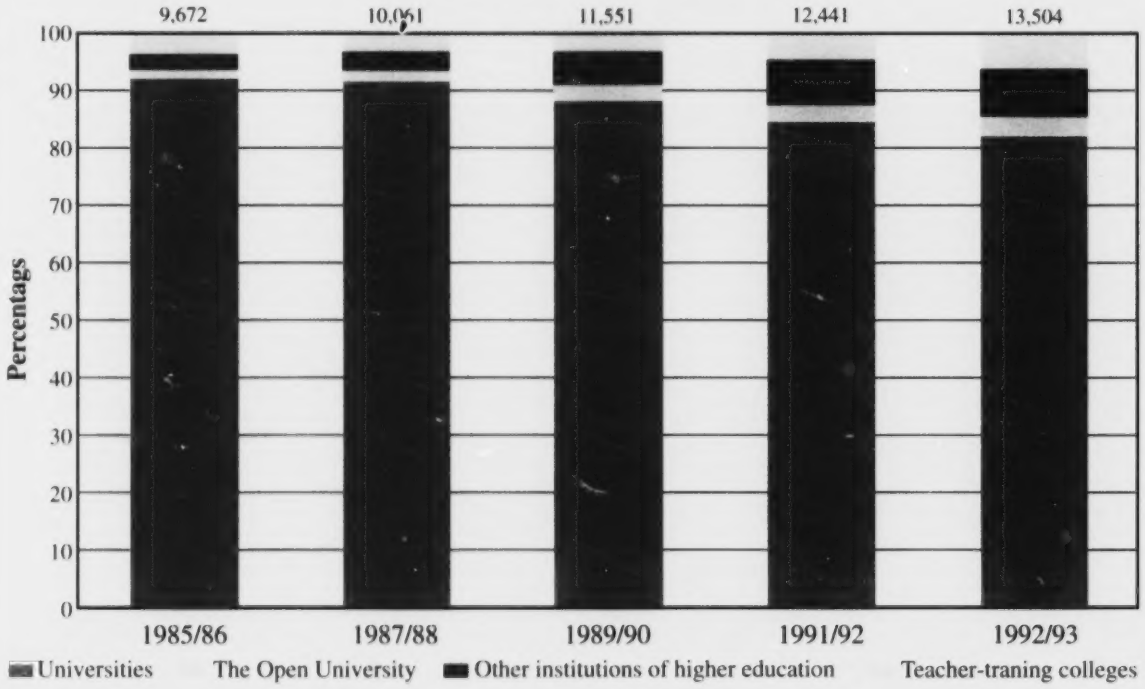
c. Similar to the trend for undergraduate students described in Section 3.b above, the numbers of degree recipients from non-university institutions and the Open University are increasing at a faster rate than the comparable numbers for universities. From 1989/90 to 1992/93, the number of bachelor's degree recipients from teacher-training colleges increased by 19.3% per year; at other institutions of higher education this number increased by 28.3% per year; at the Open University, by 10% per year; and at universities, by only 3% per year. As a result, the proportion of undergraduate degrees granted by universities dropped from 92.2% in 1985/86 to 88.3% in 1989/90 and 82.5% in 1992/93. See Figure 1.16.

d. The number of postgraduate degree recipients increased from 3,700 in 1989/90 to 4,400 in 1992/93, a 6% annual rate of increase. During this period, the average annual rates of increase were 4.2% for master's degrees, 7.3% for doctoral degrees, and 14.2% for diplomas (see Table 5.2).

e. Table 1.7 shows the distribution by field and degree level for degree recipients at all institutions of higher education in 1989/90 and 1992/93. Similar to the trend for students (Section 3.d above), as the level of degree advances, the proportion of degrees in the experimental sciences and mathematics increases. In 1992/93, these fields accounted

Figure 1.16

Recipients of Undergraduate Degrees from Institutions of Higher Education, by Type of Institution



See Table 5.1

for 32.3% of undergraduate degrees granted, 48.2% of master's degrees, and 75.2% of doctoral degrees. In 1989/90 and 1992/93, more than half of the doctoral degrees granted were in mathematics and the natural sciences. See also Tables 5.5, 5.11, and 5.12.

Figure 1.17 shows the percentages of degree recipients (at all degree levels) who majored in mathematics and computer science, natural sciences, and engineering in various countries in the early 1990's. In Japan, the U.K., Sweden, and Israel, about one-quarter of the degrees were granted in these subjects, and only West Germany exceeded this figure. It is interesting to note that the U.S. appears at the bottom of this graph. Israel emphasizes the natural sciences more than any other country except the U.K., while Sweden, West Germany, and Japan particularly emphasize engineering.

f. Figure 1.18 displays the distribution of degree recipients among the various universities in 1992/93. Approximately 27.9% of the degree recipients at all levels completed their studies at Tel Aviv University, 24.6% at the Hebrew University, 13.7% at Bar-Ilan University, 12.1% at the Technion, 11.1% at the University of Haifa, 9.5% at Ben-Gurion University of the Negev, and 1.0% at the Weizmann Institute of Science (which only grants postgraduate degrees). This order prevails for undergraduate degrees also, as well as for master's degrees (with the exception of the Technion, which moves up from the fourth-largest institution for undergraduate degrees to the third-largest institution for master's degrees, ahead of Bar-Ilan University). For doctorates, the proportion at the Hebrew University (28.4%) exceeds that at Tel Aviv University (22.8%). The Weizmann

Table 1.7

Recipients of Degrees from Institutions of Higher Education, by Level of Degree and Field of Study 1989/90, 1992/93 (percentages)

	Level of degree					
	Bachelor's degree		Master's degree		Doctorate	
Field of study	1989/90	1992/93	1989/90	1992/93	1989/90	1992/93
Total	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	30.4	30.6	16.6	16.8	16.4	16.2
Social sciences	29.1	33.5	33.4	34.3	7.3	8.5
Law	3.9	3.6	0.2	0.7	0.7	0.2
Paramedical studies	6.5	7.7	15.5	13.9	6.9	4.0
Mathematics and natural sciences	13.4	11.1	18.2	19.3	51.8	51.3
Agriculture	1.4	1.6	4.4	2.2	4.0	4.3
Engineering and architecture	15.2	11.9	11.8	12.8	12.9	15.6

See Tables 5.5, 5.11, and 5.12.

Institute is also one of the larger institutions for doctoral degrees, accounting for 15.3% of all doctoral degrees granted in 1992/93.

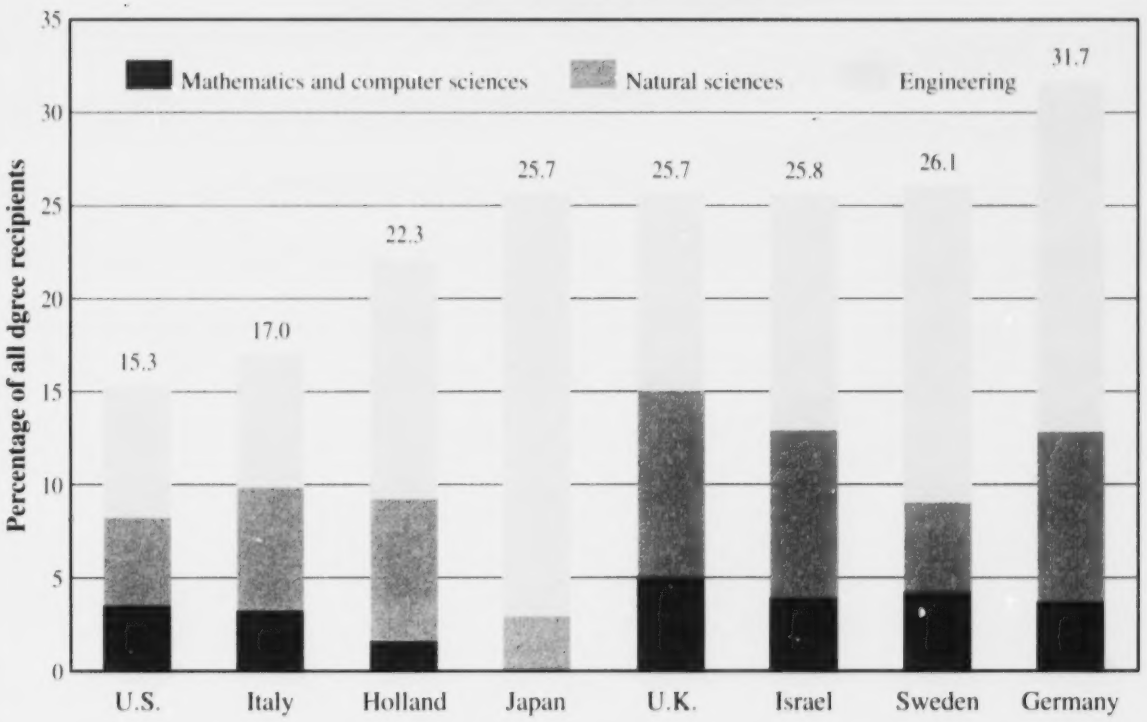
Between 1989/90 and 1992/93, the number of degree recipients increased at a rapid annual rate at Bar-Ilan University (9.7%) and the University of Haifa (7.3%). For the same period, the average annual increase across all the universities was 3.8%. See Tables 5.3 and 5.4.

Demographic characteristics of degree recipients

g. The percentage of women among university degree recipients at all levels is similar to their share in the total number of students, cited above (Section 3.i). Women received approximately 53.5% of the bachelor's degrees granted by universities in 1992/93, compared to 51.7% in 1989/90. For the other degree levels, the figures were: for master's degrees, 48.4% in 1992/93 compared to 44.3% in 1989/90; and for doctoral degrees, 37.9% in 1992/93 compared to 34.9% in 1989/90. Regarding diploma recipients, more than 75% have been women every year since 1974/75. At teacher-training colleges and other non-university institutions of higher education, women accounted for 58.4% of degree recipients in 1992/93. At the Open University, the comparable figure was 54.3%. For all institutions of higher education taken together, the total percentage of women among bachelor's degree recipients in 1992/93 was 54.2%. However, full data on the sex of degree recipients from teacher-training colleges is not available prior to 1992/93. Therefore, we cannot precisely document the rise in the percentages of women over time for all bachelor's degree recipients. See Tables 5.3, 5.8, and 5.11.

Figure 1.17

Percentages of Degree Recipients in Mathematics, the Natural Sciences and Engineering among all Degree Recipients in Israel and other Developed Countries



Source: OECD (see end of Section 1 above) and PBC, based on data of the Israeli Central Bureau of Statistics.

Notes:

1. In Japan, mathematics and computer sciences are included in engineering.
2. The data relate to 1991 (1991/92) at all degree levels.

h. Regarding population groups and continent of origin of bachelor's degree recipients at universities, about 94.6% were Jews in 1989/90, and about 5.4% were non-Jews. Among the Jewish bachelor's degree recipients, approximately 81.9% were Israeli-born, 4.6% born in Asian and African countries, and 13.5% born in Europe and America. An examination of the fathers' countries of origin reveals that 26% of the Jewish degree recipients were second-generation Israelis; 27.5% of Asian or African origin, and 46.5% of European or American origin. The changes over time for population group and continent of origin of degree recipients are similar to those described above for university students (Section 3.j). See Table 5.9.

i. About half of those receiving bachelor's degrees from universities in 1989/90 were aged 25-29 when they received their degrees; the median age was 26.9. The median age for master's degree recipients in 1989/90 was 31.6, and for doctoral degree recipients, 36.1. The median age of women bachelor's degree recipients in 1989/90 was more than a year and a half less than that for men – 26.0 versus 27.6. This is due to the fact that women tend to

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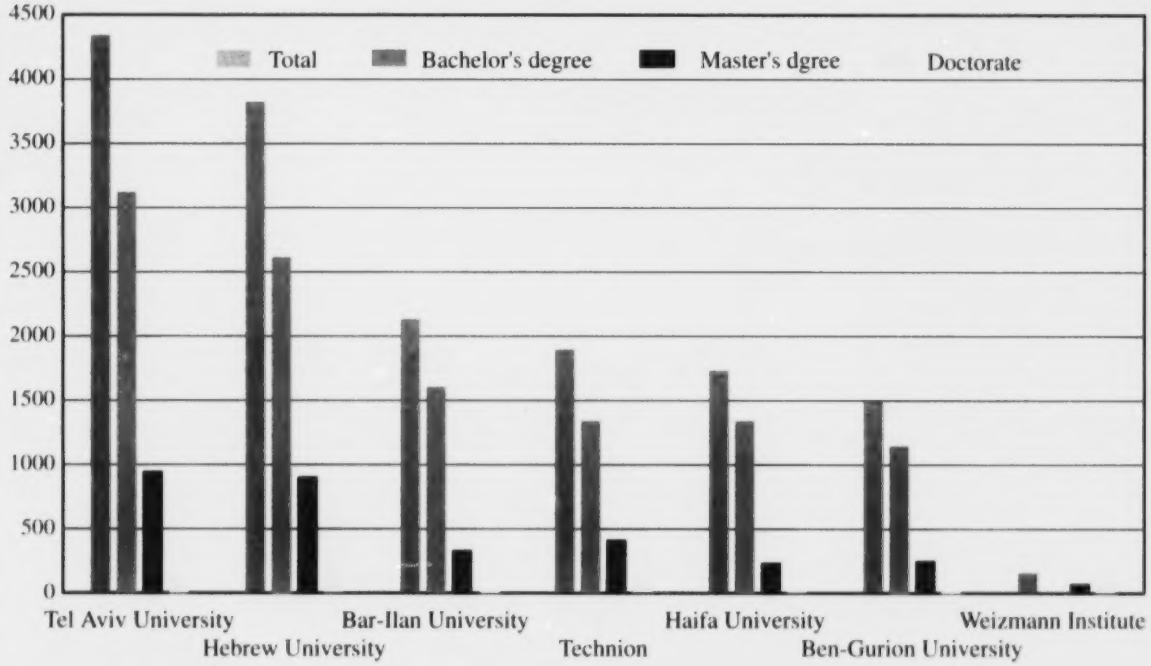
Figure 1.18

Recipients of Degrees from Universities, by Institution and Level of Degree 1992/93



1. Doctorate recipients numbered 44 at Bar-Ilan University, 12 at the University of Haifa, and 19 at Ben-Gurion University of the Negev.

See Table 5.4.

start their studies at an earlier age than men, as mentioned above (Section 4.b and Table 3.12). For master's degrees, however, the median age for women (31.5) is virtually identical to that for men (31.7). For doctoral degrees, on the other hand, the median age for men (35.7) is a year lower than that for women (36.7).

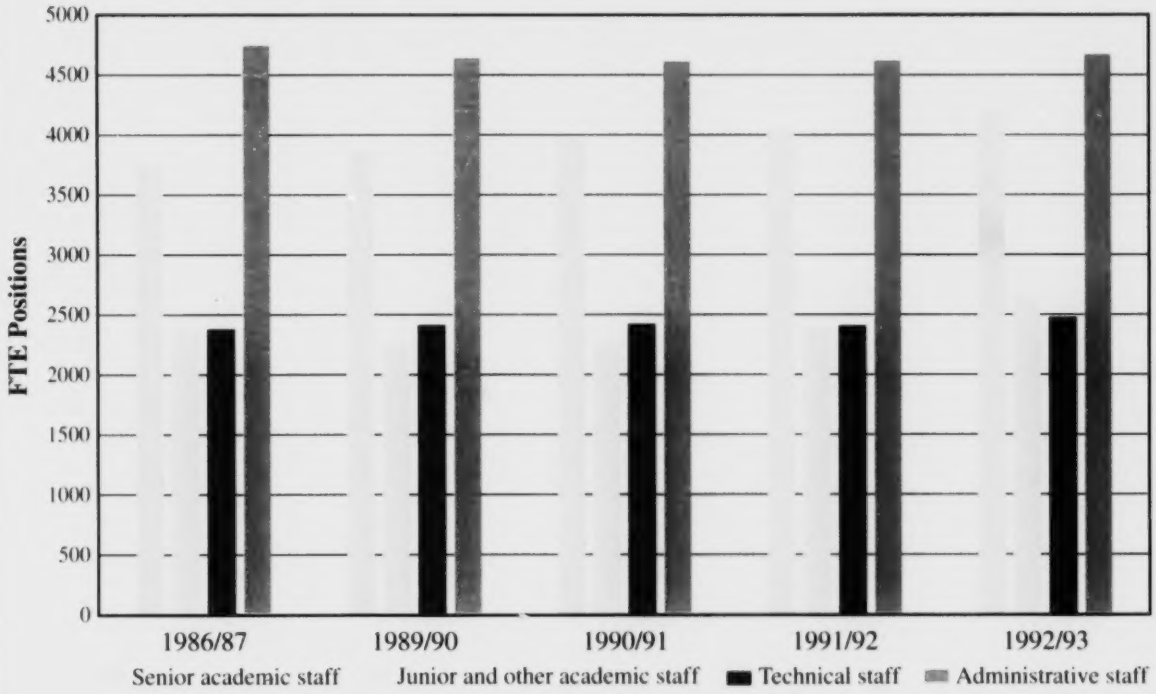
The age of degree recipients also varies among different fields of study. The median ages for bachelor's and master's degree recipients in the fields of mathematics and natural sciences (25.7 and 28.9, respectively) are the lowest for any fields. On the other end of the spectrum, bachelor's and master's degree recipients in the humanities have the highest median ages (27.9 and 38.9, respectively). This relative age advantage for mathematics and natural sciences degree recipients naturally prevails for doctoral students as well, where the median age is 34.1. This age is in comparison to the median age for all doctoral degree recipients in 1989/90, which was 36.1, as stated above. The ages of degree recipients at all levels remained relatively stable between 1984/85 and 1989/90. See Table 5.10.

6. Staff at Institutions of Higher Education

a. Time-series data on staff at institutions of higher education exist only for the seven universities, the Open University, and other institutions of higher education that are funded by the Planning and Budgeting Committee. This review, as well as most of the tables

Figure 1.19

University Staff Financed from the Ordinary Budget, by Type of Staff



Note: Junior and other academic staff includes junior staff, teaching and research assistants, external teachers, and other teaching and research staff. See Table 6.2.

in Chapter 6, refer to the universities, on which detailed and consistent data have been compiled since 1978/79. Since the previous edition of this publication, data has been obtained on university staff by characteristics such as academic field, sex, and age. In the latter part of this section, we will expand the description and analysis of these new topics.

Type of budget, type of staff, and institution

b. In 1992/93, approximately 18,060 active staff members were employed at the seven universities (not including those on sabbatical leave abroad, on unpaid leave of absence, on fellowships, etc.). This figure, like all data that will be presented in this section, was calculated in full-time equivalent positions. Staff are financed by three types of budgets: ordinary, closed, and research. Approximately 77.6% of all staff in 1992/93 were financed from the ordinary budget, which covers ongoing teaching and research activity at the universities. The closed budget, which covers specially defined activities that are not directly connected with the universities' day-to-day operations (such as pre-academic preparatory programs), financed 7.1% of all staff in that year. The remaining staff, approximately 15.3%, were financed from research budgets, generally derived from external sources, which primarily cover specified research activities. See Section 8.d below.

c. The number of university staff members has been increasing since 1989/90, from 16,560 full-time positions in 1989/90 to 18,060 in 1992/93, an annual growth rate of 2.9%.

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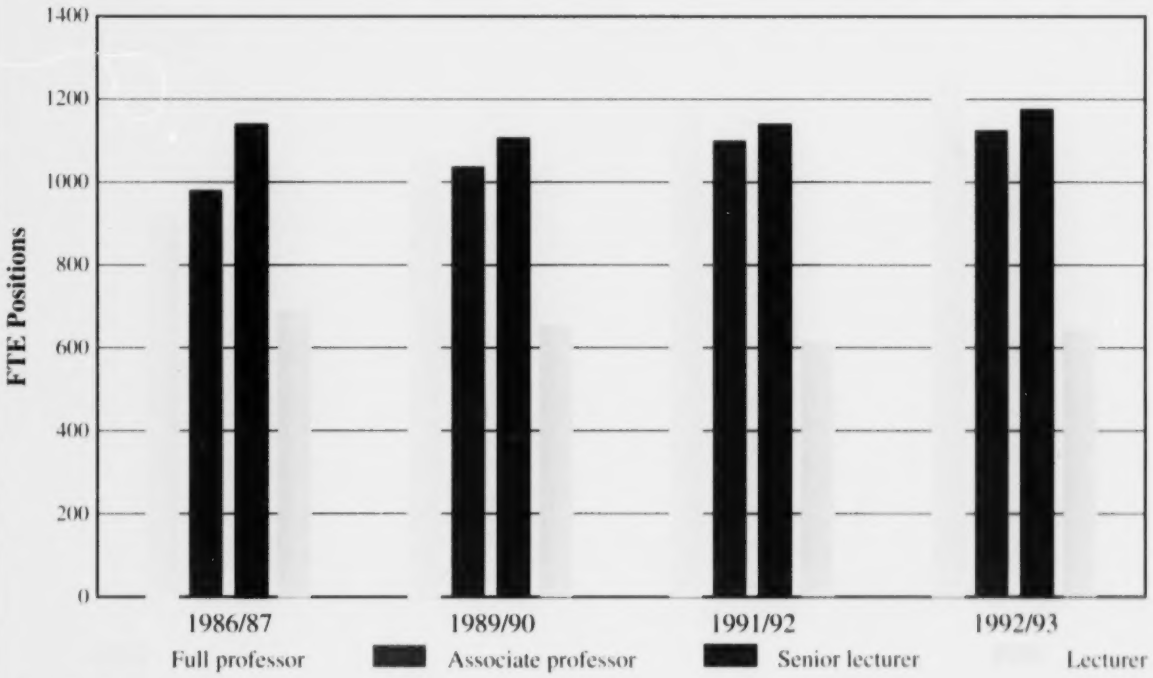
Figure 1.20

Senior Academic Staff at Universities Financed from the Ordinary Budget, by Rank



See Table 6.3

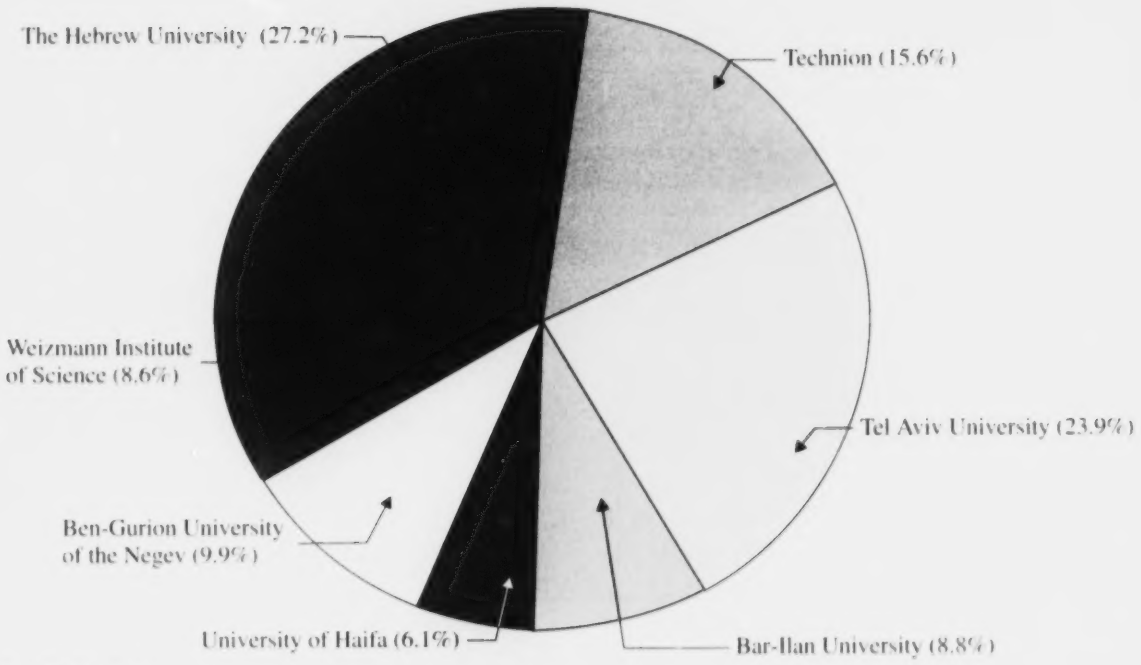
This increase was unequally distributed over the three types of budgets. The number of positions financed by the ordinary and closed budgets increased at annual rates of 2.1% and 1.7%, respectively. At the same time, the number of positions financed by the research budget increased by 8.6% annually.

The increase in the research budget occurred primarily in 1991/92, when 470 full-time positions were added, bringing the total to 2,700, or an increase of 20.9% in one year. The bulk of this increase was made up of immigrant scientists, who were temporarily employed in university research activities as the first stage in their absorption into the Israeli labor force. These scientists' employment was primarily financed by two government programs set up for this purpose. One program, run by the Center for Absorption in Science of the Ministry of Immigrant Absorption, operated until recently in cooperation with the Planning and Budgeting Committee. The other program is run by the Ministry of Science and the Arts. In light of the recent decline in immigration from the former Soviet Union, it appears that these programs have already maximized their potential. Therefore, according to the changes in immigration rates over the next few years, these programs are likely to reduce their scope in the future. See Tables 6.1 and 6.4.

d. The staff can be broken down into types – teaching and research, technical, and administrative – determined by their grading scales in the salary file. In 1992/93, approximately 47.6% of all university staff, financed from all budgetary sources, were teaching and research staff; 19.8% were technical staff; and 32.6% were administrative staff. The teaching and research staff is

Figure 1.21

University Staff, by Institution 1992/93


The Hebrew University (27.2%)
Technion (15.6%)
Weizmann Institute of Science (8.6%)
Tel Aviv University (23.9%)
Ben-Gurion University of the Negev (9.9%)
University of Haifa (6.1%)
Bar-Ilan University (8.8%)

See Table 6.5.

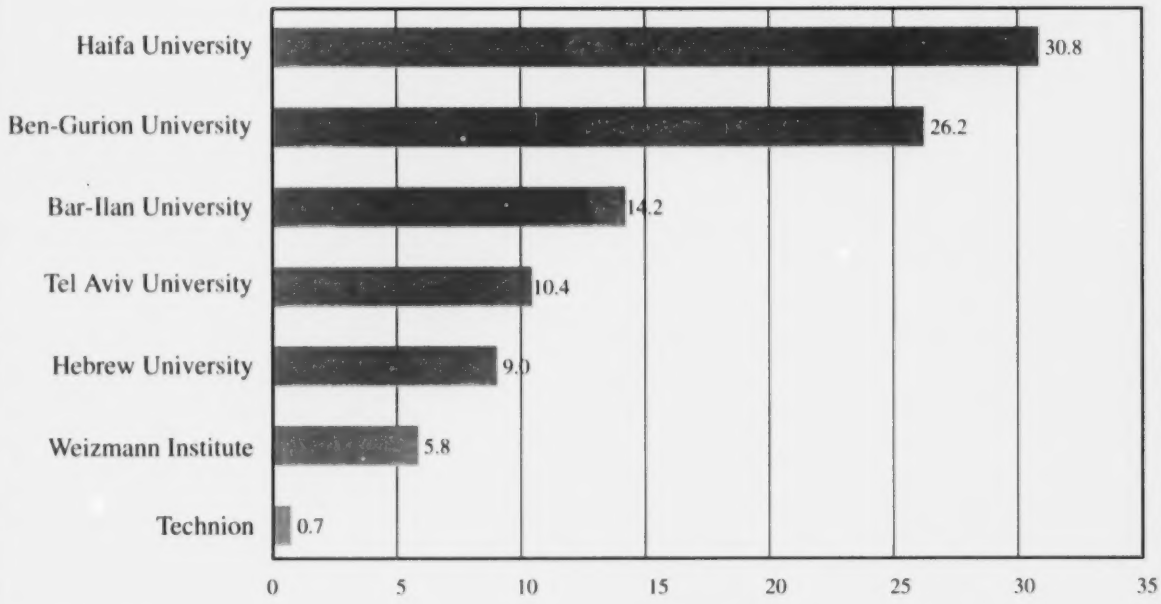
composed of: senior academic staff, at the rank of lecturer and above (25.9% of all staff); junior academic staff and teaching and research assistants (9.2% of all staff); other teaching and research staff, made up primarily of immigrant scientists, who are included in the "other research staff" (5.9% of all staff); and external teachers (6.5% of all staff). Most senior academic staff (89.8%) are financed from the ordinary budget, while the research budget is primarily used to finance other teaching and research staff (65.8% are financed from this budget) and technical staff (23.5% are financed from this budget). In comparison, the overall percentage of university staff financed from the research budget is 15.3%. See Table 6.4.

e. Figure 1.19 shows the trends in staff members financed from the ordinary budget since 1986/87. During this period, the teaching and research staff increased, while the size of the technical and administrative staff did not change significantly. The number of senior academic staff members financed from the ordinary budget increased by 460 full-time positions, from 3,750 positions in 1986/87 to 4,210 in 1992/93, an increase of 12.2%. Most of this growth occurred after 1989/90, following the increase in the number of students. In the past three years, the number of senior academic staff members has increased by 2.7% annually. From 1989/90 on, the number of junior and other teaching and research staff (including external teachers) increased at an even greater annual rate of 5.6%, from 2,250 in 1989/90 to 2,650 in 1992/93. See Table 6.2.

f. Figure 1.20 shows that the primary increase in senior academic staff financed from the ordinary budget was an increase in the number

Figure 1.22

Increase in Teaching and Research Staff Financed from the Ordinary Budget at the Universities 1989/90 to 1992/93



See Table 6.2

of full professors. This figure increased by 330 full-time positions, from 930 in 1986/87 to 1,260 in 1992/93. The proportion of full professors among all senior academic staff increased from 24.8% in 1986/87 to 29.9% in 1992/93; during this period, the rank of full professor became the most prevalent rank among senior academic staff. The percentage of associate professors also increased slightly during this period, from 26.2% in 1986/87 to 26.8% in 1992/93. At the same time, the share of lower-ranked senior academic staff (lecturer and senior lecturer) declined from 49% in 1986/87 to 43.3% in 1992/93. See Table 6.3.

g. More than two thirds of all university staff positions in 1992/93, financed from all budgetary sources, were concentrated at three institutions: the Hebrew University, Tel Aviv University, and the Technion. See Figure 1.21 and Table 6.5. Given the large increase in the numbers of university students since 1989/90, it is important to look at changes in the size of the staff at each institution. Figure 1.22 shows the increases in teaching and research staff financed from the ordinary budget from 1989/90 to 1992/93 (the teaching and research staff financed from the ordinary is the sector most directly affected by changes in the number of students). The universities which experienced the greatest increases in student numbers (Haifa, Ben-Gurion, and Bar-Ilan) also showed the greatest increases in their teaching and research staff financed from the ordinary budget. See Section 3.h above and Table 6.2.

Senior academic staff by academic field

h. In 1992/93, almost all senior staff (at the rank of lecturer and above) financed from the

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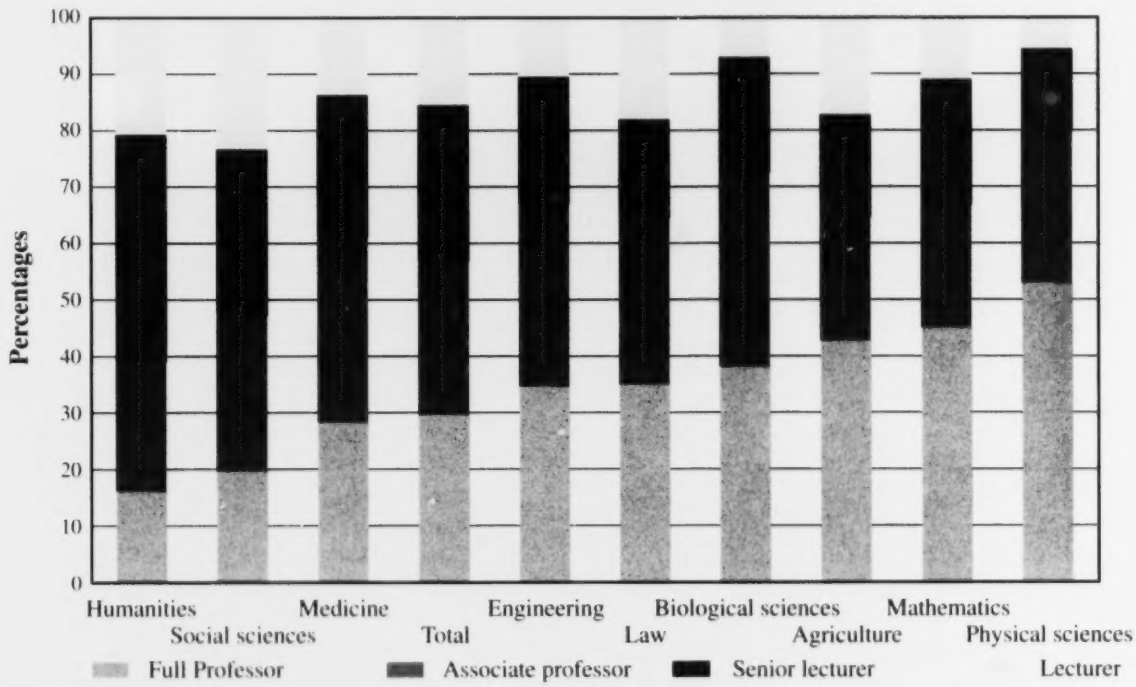
Figure 1.23

Senior Academic Staff at Universities Financed from the Ordinary Budget, by Academic Field and Rank – 1992/93



See Table 6.10.

ordinary budget (97.2%) were employed in academic units (departments, faculties, etc.) engaged in teaching and research. Among these, 47.7% were connected with units in the humanities, social sciences, and law; 19.5% in biological sciences (including medicine and agriculture), 12.8% in the physical sciences, 11.6% in engineering, and the rest (8.3%) in mathematics and computer sciences. See Table 6.9.

Distribution by rank among senior academic staff varies significantly among different fields. As mentioned above (Section 6.f), approximately 29.9% of all senior academic staff were full professors in 1992/93; if associate professors are included, then almost 57% held professorial rank. In the non-experimental fields, excluding law, the number of professors was significantly lower than the average. This figure was 39% in the humanities and 47.4% in the social sciences. In contrast, the percentages of professors in the biological and physical sciences were extremely high, reaching 72.5% and 79.9% respectively. See Figure 1.23 and Table 6.10.

Senior academic staff by age

i. The average age of senior academic staff at universities financed from the ordinary budget in 1992/93 was 51.5. This age was relatively consistent across all academic fields and institutions. The field with the youngest staff is mathematics and computer sciences (average age of 47.8), while the field with the oldest staff is agriculture (average age of 52.8). Among institutions, the average age ranged from 49.1 at the Weizmann Institute of Science to 52.1 at the Technion. Regarding the average age for various ranks in 1992/93,

the figures are as follows: full professor, 56.5; associate professor, 52.9; senior lecturer, 49.4; and lecturer, 43.9. See Tables 6.11 and 6.12.

j. Figure 1.24 displays the age distribution of senior academic staff financed from the ordinary budget. Only about one-quarter of the staff in 1992/93 were aged 44 or less. This stems from the very slow increase in senior staff positions during the 1980s. This slow increase in new positions, combined with low retirement rates, enabled universities to absorb very few new, young academic staff members. The most prevalent age group among senior staff was 45-54. Academic staff members in this age group and the 55-64 age group, together constituting 68.7% of the entire staff, mostly joined the universities when the higher education system was rapidly expanding, between the mid-1960's and the late 1970's. The progression of this large group over time was of course accompanied by an overall aging of the staff, a process which apparently ended at the beginning of the 1990's.

These data on the age of the senior staff financed from the ordinary budget are not matched by any comparable data for an earlier period. For this reason, we cannot precisely measure the staff's aging over time. However, a comparison with the first comprehensive survey of university staff, covering the 1978/79 academic year, can shed light on this issue. This early study found that the average age for senior academic staff financed from all budgetary sources was 45.4. Taking into account the fact that staff members financed by other budgetary sources may have been younger than those financed from the ordinary budget, it appears that the staff aged by an average of five years during the 1980's and early 1990's.

In the next few years, the expansion of the higher education system and the expected increase in retirement among veteran staff members should cause the average age to stabilize and perhaps even drop somewhat. In 1992/93, the average age already dropped slightly compared to 1991/92, from 51.7 to 51.5.

Table 1.8 compares the age of Israeli senior academic staff financed from the ordinary budget with senior academic staff in the U.S., Canada, the U.K., and Australia.* Israeli staff members are significantly older than their colleagues in the above countries, as reflected in the relatively high average age, as well as the high proportion of staff members over 55 and the low proportion of staff members under 40.

In addition to the aging process described above, which also took place in the other countries, the gap between Israel and the other countries can be partially explained by the relatively advanced age at which Israeli staff members take up their positions. The PBC conducted a survey which included most of the new senior academic staff financed from the ordinary budget who were hired at Israeli universities in the 1980's. This survey revealed that the average age of an incoming senior academic staff member was 35. This relatively advanced age is due to the high average age upon receiving a doctoral degree (about 32) and the university norm that each staff member should have had a post-doctoral appointment prior to entering a tenure-track position (a norm that took root in Israel in the 1980's **),

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* The data for Australia relate to all higher education institutions, while the data for Israel and the other countries relate to senior academic staff at universities only.

** Herskovic, Shlomo, *The Alon Fellowship Program for Outstanding Young Scientists – A Follow-up Study*, Council for Higher Education, Planning and Budgeting Committee, Jerusalem, 1991/92, pp. 21-23.

Table 1.8

Age and Average Age of Senior Academic Staff in Selected Countries

Country	Year	Average Age	Percentage Younger than 40	Percentage 55 and Older
U.S.*	1987/88	47	..	25.4
Canada*	1988/89	46.5	..	20.3
U.K.	1992/93	45.7	28.4	16.9
Australia	1991/92	47.1	19.1	16.9
Israel	1991/92	51.7	10.1	36.4
Israel	1992/93	51.5	10.8	36.2

The data were calculated on the basis of the following sources:

U.S.: National Center for Education Statistics, *Staff in Institutions of higher education*, 1988, March 1990, Washington, D.C., p. 9.

Canada: Association of Universities and Colleges of Canada, *Trends – The Canadian University in Profile – 1991 Edition*, Ottawa, 1991, p. 58.

England: Universities Statistical Record, *University Statistics 1992/93*, Vol. 1, Students and Staff, UK, 1993, p. 83.

Australia: Department of Employment, Education and Training, *Selected Higher Education Statistics 1991*, Canberra, 1991, p. 124 (tenurable term staff only).

Israel: See Table 6.11.

* The data for the U.S. and Canada include a small percentage of academic staff below the rank of associate professor (about 7% in the U.S. and about 8% in Canada). We estimated that their inclusion particularly influenced the percentage of staff under the age of 40, and therefore these data do not appear in the above table for the U.S. or Canada. In the U.S., partial data indicate that the age of university academic staff dropped after the year reported here. See: National Science Board, *Science and Engineering Indicators – 1993*, Washington, DC, U.S. Government Printing Office, 1993, p. 147.

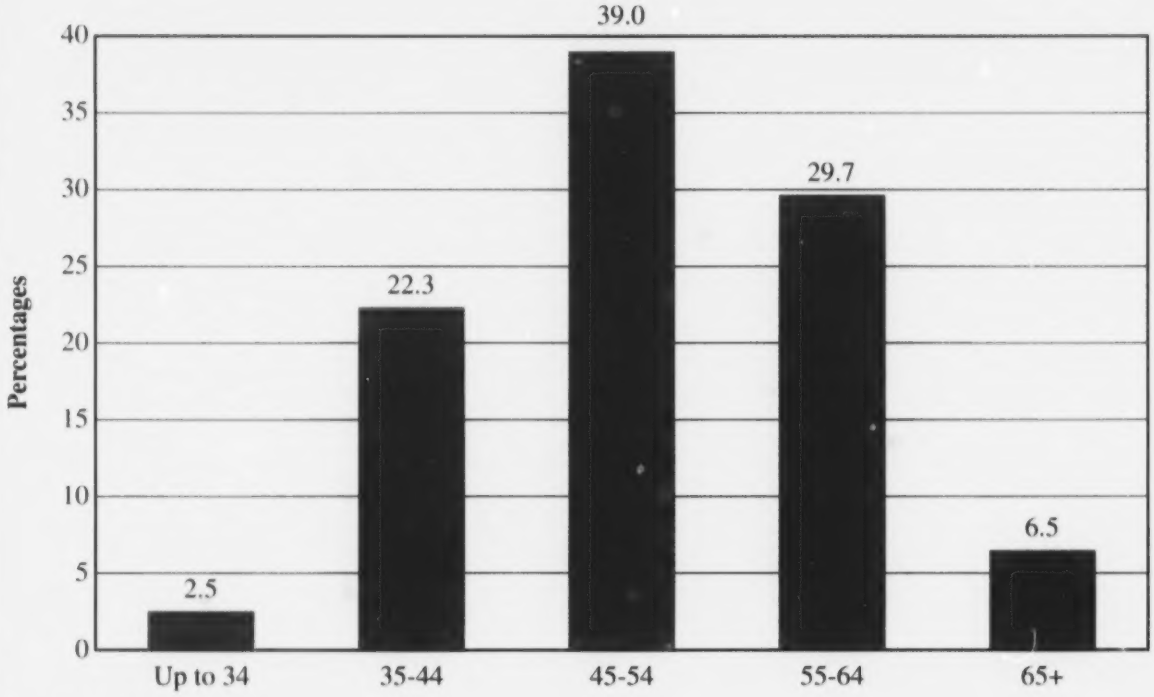
Women senior academic staff

k. In 1992/93, women represented approximately 20% of the senior academic staff financed from the ordinary budget. This figure is in comparison with 16% in 1978/79. Table 1.9 shows that the increase in women staff during this period occurred across all ranks. However, as the rank increases, the percentage of women at a given rank decreases. Figure 1.25 displays the percentage of women by academic field. Women represent a relatively small proportion of senior academic staff in the physical sciences, mathematics and computer science, engineering, and agriculture. In the humanities and medicine (including para-medical studies), however, women represent a relatively large proportion of the senior academic staff.

Women's presence among senior academic staff members in Israeli universities appears to be similar to that in other developed countries. The sources cited in Table 1.8 show that the percentage of women among senior academic staff was 23.7% in the U.S., 16.6% in Canada, 16.3% in the U.K., and 22.5% in Australia. Moreover, all these countries show the patterns discussed above for Israel: a decreasing proportion of women at the higher ranks; and relatively high concentrations of women staff members in the humanities and medicine, together with relatively low concentrations in mathematics and the physical sciences. See Table 6.13.

Figure 1.24

Senior Academic Staff at Universities, by Age 1992/93



See Table 6.11.

Figure 1.9

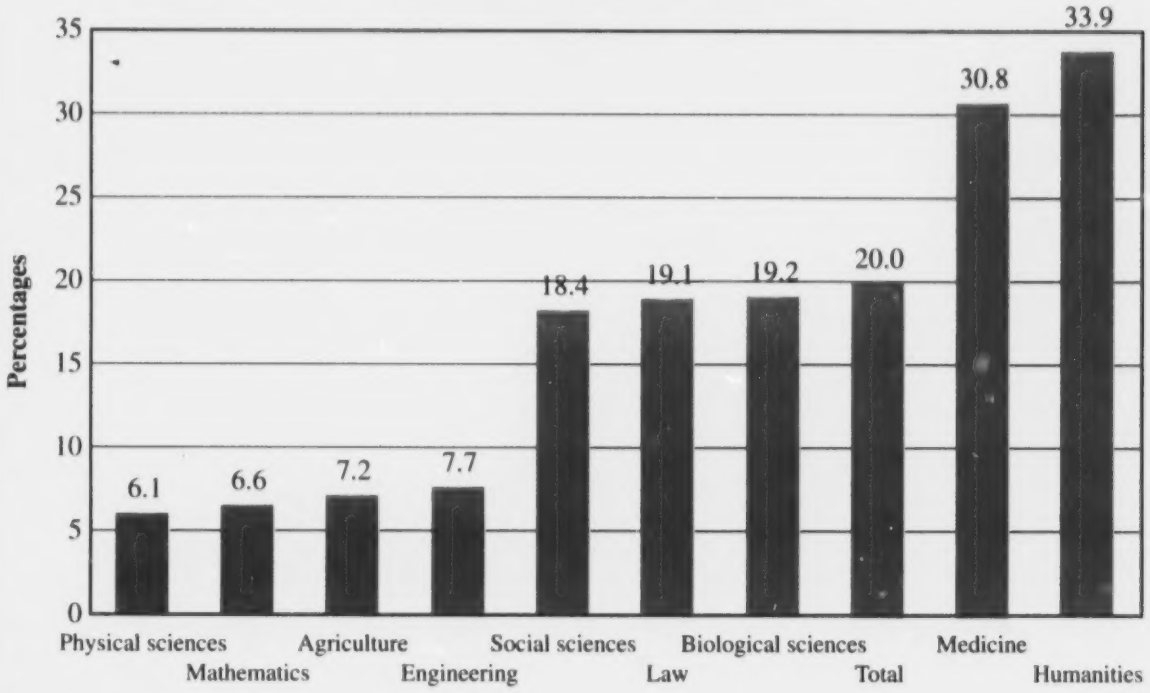
Percentage of Women among Senior Academic Staff Financed from the Ordinary Budget, by Rank 1978/79, 1991/92, and 1992/93

Rank	1978/79	1991/92	1992/93
Total	16.2	19.9	20.0
Full professor	4.6	7.3	7.3
Associate professor	7.7	13.8	14.2
Senior lecturer	16.6	29.8	30.0
Lecturer	28.9	37.3	36.6

See Table 6.13.

Figure 1.25

Women among Senior Academic Staff Financed from the Ordinary Budget, by Academic Field – 1992/93



See Table 6.13.

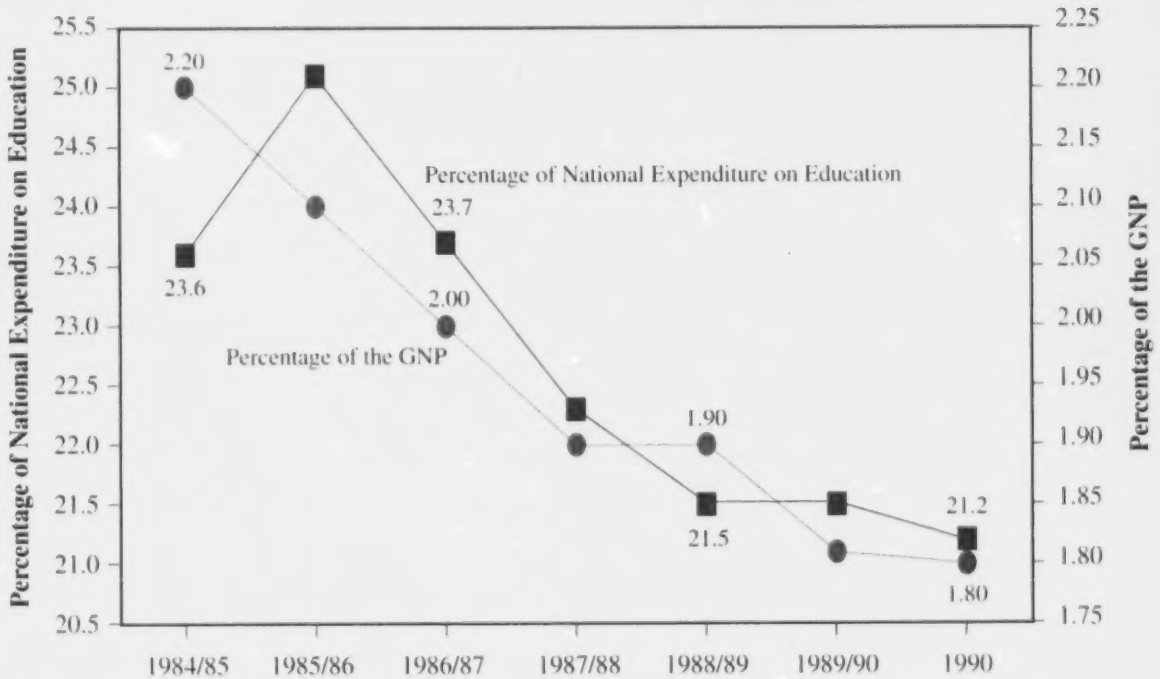
7. Financial and Physical Data on Institutions of Higher Education

a. There are two main sources of financial data on institutions of higher education: the Central Bureau of Statistics, and the Planning and Budgeting Committee (PBC). The Central Bureau of Statistics publishes data on expenditures of institutions of higher education as a component of the "national expenditure on education". Until recently, the Central Bureau of Statistics reported expenditures on institutions of higher education together with post-secondary institutions (such as schools for technicians and applied engineers), making it impossible to separate the data on the two types of institutions. In the most recent survey, relating to 1990, data on these two types of institutions were reported separately, so that data on the expenditures of the entire system of higher education institutions are available for the first time.

The second source of financial data, the PBC, collects data on the institutions of higher education that it supports. These institutions include the seven universities, the Open University, and some of the other institutions of higher education. This source, therefore, does not provide data on the institutions supported by the Ministry of Education and Culture (the academic tracks at teacher-training colleges and regional colleges), nor on privately funded institutions such as the College of Management in Tel Aviv. The detailed tables in Chapter 7, summarized here, are based on data from both the above sources.

Figure 1.26

National Expenditure on Tertiary Education



Note: Up to 1989/90, the years are fiscal years (April-March); 1990 is a calendar year. See Table 7.1.

National expenditure on tertiary education

b. The total "national expenditure on higher education" for the 1990 calendar year was 1,566 million New Israeli Shekels (NIS) in nominal prices. This figure includes current expenditures (91.2%) and investments in capital formation (8.8%). These data do not include expenditures from research budget sources (special budgets earmarked for research and development activities*), or expenditures of the Weizmann Institute of Science (except for the Feinberg Graduate School), since it is defined by the Central Bureau of Statistics as a research institute. Expenditures are distributed by type of institution as follows: universities, 83.9%; teacher-training colleges, 8.9%; and other institutions of higher education (including the Open University), 7.2%. See Table 7.1.

c. As mentioned above, no data are available on the "national expenditure on higher education" before 1990. However, the data indicate that institutions of higher education accounted for the majority (about 85%) of the national expenditure on post-secondary and higher education ("tertiary" education) in 1990. If we take this fact into account, then observing trends in the "national expenditure on tertiary education" should provide a good indication of overall trends in the expenditure on higher education.

Figure 1.26 shows trends in the "national expenditure on tertiary education" as a percentage of the "national expenditure on education" and of the GNP. According to these two indices, the "national expenditure on tertiary education" declined during the second half of the 1980's. However, the "national expenditure on tertiary education"

* Research and development budgets at universities are discussed in Section 8 below.

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Table 1.10

National Expenditure on Tertiary Education in Israel and Other Developed Countries[1]

Country	National expenditure on education as a percentage of GDP	National expenditure on tertiary education		
		As a percentage of GDP	As a percentage of the national expenditure on education	Per full-time student[2] (in 1991 prices)
U.K.[3]	5.3	1.0	20.7	9,600
U.S.	7.0	2.4	34.4	13,600
Germany	5.4	0.9	18.7	6,300
Holland	5.8	1.7	29.8	9,400
Japan	5.0	0.9	21.1	7,600
France[4]	6.0	1.1	17.7	5,900
Sweden	6.5	1.2	18.3	8,500
Israel	8.3	1.8	21.2	11,100

Source: OECD Publications (see end of Section 1 above) and the PBC, based on data of the Israeli Central Bureau of Statistics.

1. The data on Israel relate to the year 1990, while the data on the other countries relate to the year 1991.
2. The data were converted from local currency to dollars at 1991 prices, based on the purchasing power parity (PPP).
3. The data for the U.K. relate only to the public expenditure, which is the primary funding source for education.
4. The source of the data (OECD) notes that the distribution of expenditure by educational levels in France is not exact, since some expenditures cover two or more educational levels simultaneously.

in the early 1990's in Israel is high compared to other developed countries, both relative to GNP and expenditure per full-time student. See Table 1.10. It should be noted that in light of the significant expansion of the higher education system at the beginning of the 1990's (see Section 3 above), tertiary education is likely maintain its share of the national expenditure relative to both GNP and the "national expenditure on education"; its share is even likely to increase somewhat in the coming years. See Table 7.1.

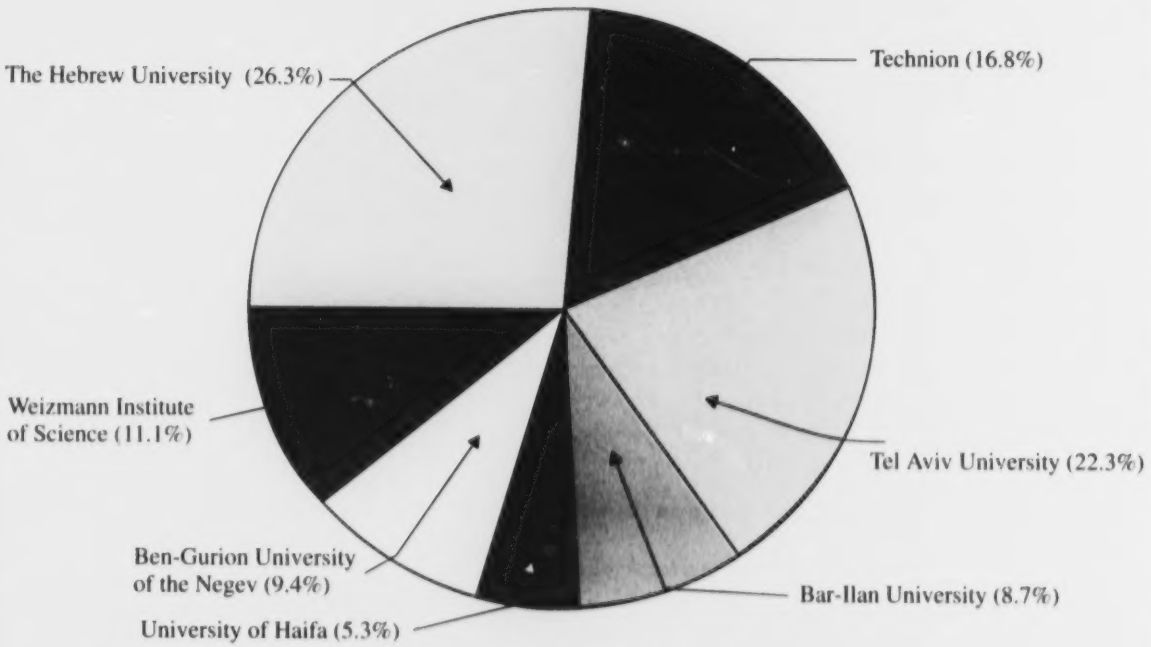
The budget of institutions supported by the PBC

d. An analysis of the PBC's financial data offers a more updated picture of the status of most of the institutions of higher education. The PBC compiles data on the ordinary and development budgets of the institutions of higher education that it supports. Consistent data on total expenditures and incomes of these institutions within the framework of the ordinary budget*, based on a special

* The ordinary budget is defined as the budget earmarked for normal, ongoing expenses for teaching and research. See the technical appendix.

Figure 1.27

Distribution of the Ordinary Budget of the Universities, by Institution 1991/92


The Hebrew University (26.3%)
Technion (16.8%)
Weizmann Institute of Science (11.1%)
Tel Aviv University (22.3%)
Ben-Gurion University of the Negev (9.4%)
Bar-Ilan University (8.7%)
University of Haifa (5.3%)

See Table 7.5.

analysis by the PBC of the institutions' financial reports, exist only since the 1987/88 academic year. Total expenditures of these institutions, within the framework of the ordinary budget, rose in fixed 1992/93 prices, from NIS 2,050 million in 1987/88 to NIS 2,268 million in 1991/92, a real increase of approximately 10.8%. According to data on the updated, approved framework budget, these expenditures are expected to continue to increase in real terms in 1992/93, reaching approximately NIS 2,300 million.

Approximately 95% of the above expenditures were at the seven universities (including the Weizmann Institute of Science). Among the universities, the expenditures of the ordinary budgets in 1991/92 were distributed as shown in Figure 1.27. The rest of the expenditures were divided among the Open University and the other institutions supported by the PBC. Expenditures on these other institutions increased in real terms by only 1.1% between 1987/88 and 1992/93, mostly because of the slow growth in enrollment at these institutions during this period (see Table 3.18). At the Open University, where enrollment increased significantly during this period (see Table 3.14), expenditures increased by a comparable amount. See Tables 7.2 and 7.3.

e. The actual income of all the institutions of higher education funded by the PBC amounted to NIS 2,350 million in 1991/92, representing a surplus of approximately NIS 81.9 million over expenditures. This is the second consecutive year in which the system showed a surplus; in 1990/91, the surplus was NIS 33.4 million in 1992/93 prices. In 1992/93, the institutions expected to show a further surplus of approximately NIS 102.5 million. Approximately 59% of the income in 1991/92 came from public resources,

transferred to the institutions by the PBC – almost half as a direct global allocation and about 10% as earmarked allocations. Other major sources of income are tuition fees (about 19.7%) and donations, mainly from abroad (9.3%). Other income from sale of services, research overhead, etc., amounted to 11.9%. Between 1987/88 and 1991/92, the proportion contributed by tuition fees increased significantly, from 15.2% in 1987/88 to 19.7% in 1991/92. This increase was at the expense of the line item defined as "other sources of income", which declined from 18.7% in 1987/88 to 11.9% in 1991/92. According to data on the updated, approved framework budget, the proportion of the total income contributed by the PBC was expected to reach 64% in 1992/93. See Table 7.2.

f. As noted, no consistent data exists on total expenditures and income prior to 1987/88. However, trends in income from the PBC and from tuition fees in the ordinary budgets of institutions supported by the PBC can be examined over a longer period. See Figure 1.28. The PBC constitutes the largest source of income for the institutions. Income from this source, in 1992/93 prices, increased from NIS 970 million in 1984/85 to NIS 1,540 million in the budget approved for 1992/93. This represents a real increase of 58.6%. Income from tuition fees increased at an even steeper rate, from NIS 153 million in 1984/85 to NIS 498 million in 1992/93, an increase of 188%. As noted, income from the PBC is transferred to institutions in the framework of the direct global allocation, which represents the largest share of the allocation, and earmarked allocations. During the period from 1984/85 to 1987/88, earmarked allocations doubled their share of the total PBC allocations, from 7.3% in 1984/85 to 14.3% in 1987/88. However, their proportion then declined slightly, reaching 13.5% in 1991/92. In 1992/93, the proportion of earmarked allocations increased again, to 14% of the PBC's total allocations. Early data on planned allocations indicate that the share of earmarked allocations will continue to increase in the years after 1992/93 (see Table 7.4).

g. Actual expenditures in the framework of the development budgets* of those institutions supported by the PBC amounted to NIS 125 million in 1992/93. Almost all of this sum was spent by the universities (including the Open University), while the remainder was spent by the other institutions of higher education. The PBC's contribution to the development budget of the above institutions amounted to NIS 50.5 million in 1992/93, representing 40.4% of the total investment in the development budget. The total development budget of the institutions supported by the PBC experienced a long-term downward trend beginning in 1973/74. Since 1989/90, however, the development budget has begun to grow again, along with the PBC's contribution to this budget. This growth accompanies the current expansion of the higher education system, and it appears that both the development budget and the PBC's contribution to it will continue to increase in the coming years. See Tables 7.7 and 7.8.

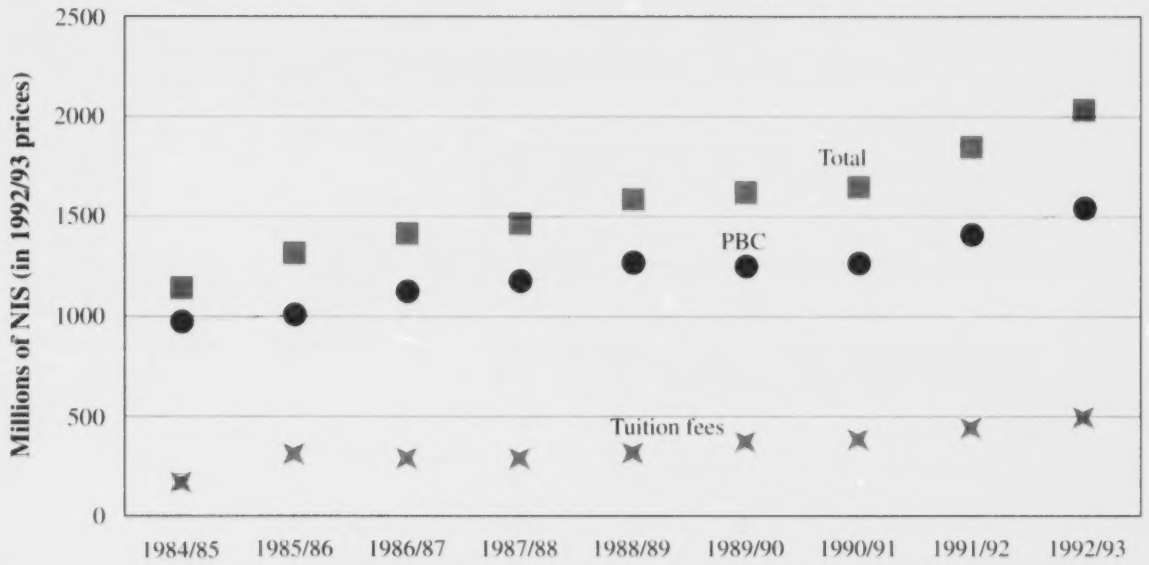
8. Inputs and Outputs of University Research

a. At the national level, universities fulfill a dual role. On the one hand, they provide teaching services at the highest level, and they represent the peak of a country's national education system. On the other hand, the universities constitute the infrastructure of the national research and development (R&D) system, in that they are responsible for a significant share of the basic research done in a country. This dual role is particularly strong in Israel, where until the mid-1970's, the universities were the only institutions

* Development budgets, as referred to in this report, are earmarked funds for specified construction projects and investments in general physical infrastructure. For a more detailed explanation, see the technical appendix.

Figure 1.28

Income of the Institutions of Higher Education from the PBC and Tuition Fees



See Table 7.4. The data for 1992/93 are based on the updated, approved framework budget. For the other years, the data are based on actual income received.

involved in higher education; even today, they account for well over 80% of all students in higher education. In the second area of activity, the universities account for almost all basic research done in Israel. In addition to their basic research activities, the universities supply R&D services to various sectors of the economy such as industry, agriculture, education, defense, and construction. These R&D services directly promote the short-term and mid-range goals of these sectors.

In this new section, we will describe and characterize the universities' research activities, looking at both the financial inputs invested and the scientific outputs. The updated data on these issues, presented in Chapter 8, are rather circumscribed in scope, and therefore offer only limited possibilities for analysis at this stage. As more data becomes available, we plan to expand and deepen the discussion of university research.

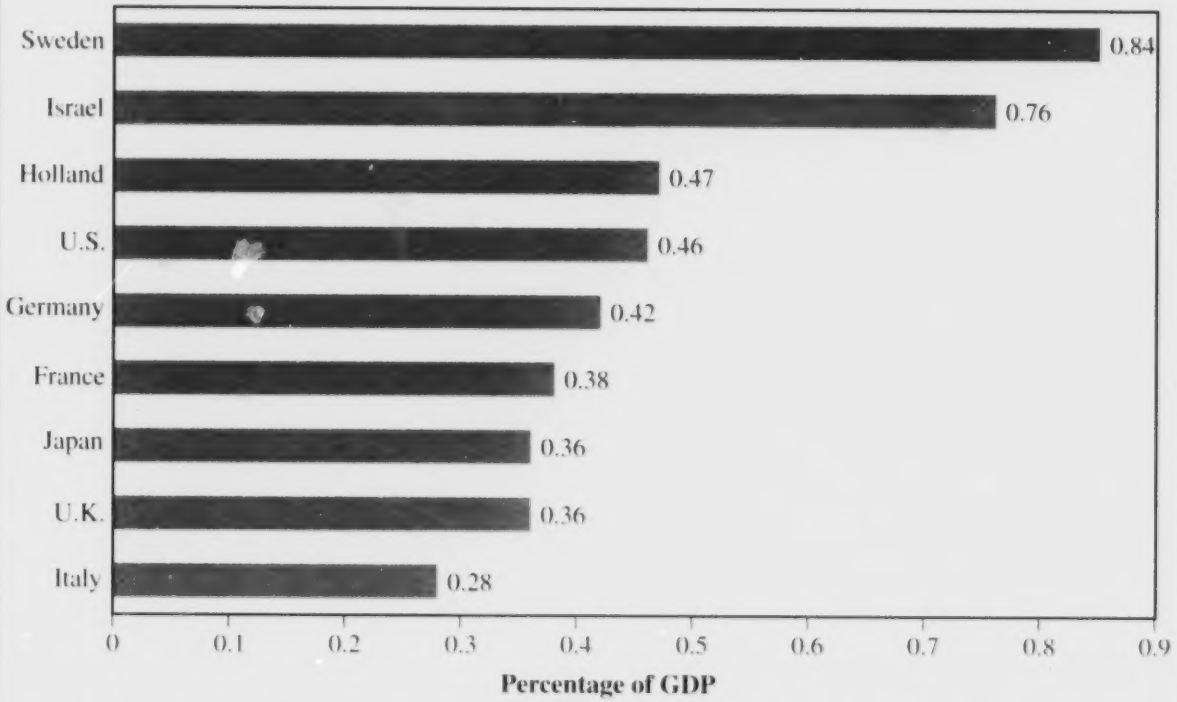
Research budgets of universities

b. Israel is among those countries that invest a significant share of their national product in R&D. According to early data of the Central Bureau of Statistics, the "national expenditure on civilian R&D" (excluding defense R&D) in 1992 amounted to NIS 3.6 billion in current prices, representing 2.25% of the gross domestic product (GDP). The comparable figure in the U.S. for the same year was 2.1%. The distribution of R&D expenditures by sector of performance shows that about a third of the "national expenditures on civilian R&D" occur at universities (see Table 8.1). These expenditures of the universities amounted to NIS 1.2 billion in 1992 (current prices). This figure is calculated, as in other OECD countries except the U.S.*, by estimating the portion of the universities' ordinary and development (building) budgets that are

* In the U.S., universities' R&D expenditures are mainly calculated according to the expenditures recorded in specially-funded research budgets, without fully allocating R&D expenditures from the institutions' ordinary and building budgets.

Figure 1.29

R&D Expenditures at Institutions of Higher Education as a Percentage of GDP in Israel and other Developed Countries – 1992



Source: OECD, *Main Science & Technology Indicators – 1994/1*, Paris, 1994, and the Israeli Central Bureau of Statistics.

Notes:

The figure for Sweden relates to 1993, while the figure for Holland relates to 1991.

The low figure for the U.S. stems from this country's definition of R&D expenditures at institutions of higher education. See also relevant comments in the text.

expended on R&D, as well as the expenditures recorded in the specially-funded research budgets of these institutions.

Figure 1.29 shows that the universities' R&D expenditures as a percentage of the GDP is very high relative to comparable expenditures in other developed countries. Israel's high figure for this index stems from the country's relatively high expenditures on tertiary education, which are dominated by the expenditures of the universities (see the discussion in Section 7 above, and particularly Table 1.10).

c. The above data are aggregated figures across all fields and institutions. To characterize R&D activities by scientific field and institution, we will focus on detailed data which exists for the specially-funded research budgets. In 1990/91, the last year for which data exist on actual expenditures, the expenditures on specially-funded research budgets by scientific field were distributed as follows: about 42.3% went to the life sciences (including the biological sciences, medicine, and agriculture); 24.3% to the physical sciences; 17.3% to the humanities; social sciences, and law; and 2.9%

to mathematics and computer science. See Table 8.2.

For distribution by institution, the figures for 1990/91 were as follows: almost one-third of the expenditures on specially-funded research budgets were at the Hebrew University; 22.1% at the Weizmann Institute of Science; 15% at the Technion and Tel Aviv University; 10% at Ben-Gurion University of the Negev; 4% at Bar-Ilan University; and 0.6% at the University of Haifa. If we combine the data on institutions with the data on scientific fields, we see that more than half of the total expenditures in the humanities, social sciences, and medicine were at the Hebrew University, while the Weizmann Institute of Science accounted for more than half of the total expenditures in the biological sciences. See Table 8.3.

d. Funding for the specially-funded research budgets in 1990/91 came from the following sources: 58.6% from Israeli sources, primarily the government and other public bodies; and 41.4% from foreign sources, primarily from the U.S. and Germany. The proportion of foreign funding in different fields ranged from 14.3% in education to 51.5% in medicine and 60.9% in the biological sciences. See Table 8.4.

The high proportion of foreign funding at Israeli universities has no rival among the other developed countries in the OECD. If we include the R&D assigned as part of the universities' ordinary and development budgets, then foreign funding accounts for 13% of the total university R&D in Israel. The comparable percentage in the early 1990's was 5.3% in the U.K., about 1% in Sweden and Italy, and less than 1% for the other countries considered in this survey.*

Scientific publications by universities

e. To participate in the international scientific research community, each researcher must distribute his or her results in an appropriate format among other researchers involved in the relevant field. Articles in refereed scientific journals provide an important channel for the free exchange of such new scientific discoveries. Articles in these journals undergo peer review before being published. Such journals are the dominant channel for publication of research results in the natural sciences, medicine, and engineering. In the social sciences, and particularly in the humanities, however, researchers also publish a large share of their **new** scientific findings in the form of books.**

Here we summarize data on articles in scientific journals (hereinafter, *publications*) by Israeli researchers. This data is taken from two different databases. The first is a world-wide database on all publications in the natural sciences, medicine, and technology that appeared in the more than 3,500 journals covered by the **Science Citation Index** (SCI). This database includes data on all publications by Israeli researchers, both those working at universities and those working in other sectors. In Israel, as noted above, research at universities accounts for almost all the basic research and a large share of the applied research published in scientific journals. It is therefore reasonable to suppose that a great majority of the Israeli publications in the SCI database are authored by university researchers (with the exception of certain fields such as clinical medicine, where doctors in Israeli hospitals play an important role). The distribution of publications by scientific field is based on a detailed classification of the journal in which each publication appeared.

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* OECD, *Basic Science and Technology Statistics – 1993 Edition*, Paris, 1993.

** The following works support this conclusion in the Israeli context:
Shai, Shmuel, Rivka Duchin and Shlomo Herskovic, **University Research in Israel: Intrinsic Indicators of Science**, The Weizmann Science Press of Israel, 1989, Jerusalem, pp. 98-108.
Frankel, Amnon, Aner Shoham and Gideon Czapski, **Research Cooperation between Israeli and Foreign Researchers**, S. Neaman Institute for Advanced Studies in Science and Technology, Haifa, 1991, pp. 10-26.

Table 1.11

Scientific Publications by Israeli Researchers as a Percentage of the World-wide Total of Publications in the Natural Sciences, Medicine, and Technology, by Scientific Field 1981, 1985, 1991

Scientific field	1981	1985	1991
Total	1.0	1.1	0.9
Clinical medicine	1.1	1.3	1.1
Biomedical science	1.0	1.0	0.8
Biology	1.1	1.2	1.1
Chemistry	0.6	0.7	0.5
Physics	1.1	1.0	0.9
Earth and space sciences	0.8	0.8	0.8
Engineering and technology	1.0	1.2	0.8
Mathematics	1.5	1.6	1.4

See Table 8.5.

The second database was developed by the Center for Information in the Social Sciences of the Henrietta Szold National Institute for Research in the Behavioral Sciences. This database, which at present only covers the year 1992, includes data on articles by Israeli university researchers in the humanities, the social sciences, the natural sciences, medicine, and technology. Classification of the articles by field in this database is based on the address (department within institution) of the article's author, as it appears in the article, and not by the article's contents or a characterization of the journal in which the article appeared. For additional technical information on the two databases, see the technical appendix.

Since researchers' patterns of publication vary among different fields, comparing numbers of publications across scientific fields must be approached very carefully. Therefore, we will use the first database on world-wide publications to examine Israel's relative contribution to the world scientific output. This database can also help identify scientific fields emphasized in Israel, as well as scientific fields where Israeli research is relatively less productive. The second database on publications by Israeli university researchers will be used to examine the institutional distribution for various fields.

f. In 1991, publications by Israeli scientists accounted for about 0.9% of all publications world-wide in journals concerning the natural sciences, medicine, and technology. The share of Israeli publications is relatively large in mathematics journals, reaching 1.4% of all articles world-wide in this field. In chemistry journals, however, the share of articles published by Israelis was relatively low – 0.5%. Table 1.11 shows that throughout the 1980's, these patterns of relative strength and weakness in Israel's output for various fields remained more or less stable relative to world output. The table also shows that during the first half of the 1980's, Israel's relative contribution to the world output of publications increased in most fields, but then declined again during the second half of the decade (with the exception of earth sciences). In fact, for many of the fields, Israel's share of the world publication output was lower in 1991 than it had been in 1981.

In attempting to explain this decline, one

should take into account that other developed countries also declined in their relative share of publications in the above fields during the 1980's. In this context, one should note the comparable figures for the U.S. (35.9% in 1981 for all fields combined versus 35.1% in 1991), the U.K. (8.3% versus 7.5%), West and East Germany (7.3% versus 6.8%), and France (5.0% versus 4.8%). It appears that the explanation can be found not in developments in Israel and the above countries, but primarily in the rapid increase in publications by other countries. For example, Japan's share increased from 6.8% in 1981 to 8.5% in 1991; China's share increased from 0.3% to 1.1%; and dynamic East Asian countries such as Singapore, South Korea, and Hong Kong, which have recently undergone rapid industrialization, increased their share from 0.2% in 1981 to 1.1% in 1991.* See Table 8.5.

g. The breakdown of Israeli university researchers' publications by institution, in each scientific field, in 1992, was as follows:** In the humanities (including law but not including education), the Hebrew University accounted for more than 36% of the publications; if taken together with Tel Aviv University, these two institutions accounted for 65% of the publications in this field. In education, the University of Haifa led with almost 32% of the publications. In the social sciences, the Hebrew University's relative output was similar to that of Tel Aviv University – 29% and 28% respectively. Bar-Ilan University was also active in this field, accounting for 21% of the publications. In the medical field, Tel Aviv University made the most outstanding contribution, with 39.9% of the publications, while the Hebrew University followed with 32.7%. In mathematics and computer sciences, publications were distributed among all the institutions. The leaders were the Technion and Tel Aviv University, who each contributed one-quarter of the publications in this field. Similarly for the physical sciences, no one institution stood out from the others in its number of publications. The leading universities in this field were the Hebrew University (23.3%), the Weizmann Institute of Science (22.4%), Tel Aviv University (20.4%), and the Technion (17.5%). In the life sciences (including agriculture), the Weizmann Institute of Science led with 39% of the publications, followed by the Hebrew University, with 29%. In engineering, as might be expected, the dominant university was the Technion, with almost 59% of the publications. See Table 8.6.

9. Israeli Students and Degree Recipients Abroad

a. Many students all over the world travel abroad for some or all of their higher education, and this phenomenon has become more and more prevalent in recent years. In this section, we will summarize data compiled from UNESCO and various national sources on Israelis who studied in post-secondary and higher education institutions abroad, as well as Israelis who obtained doctorates from foreign universities.

Israeli students abroad

b. According to UNESCO data and complementary sources in various countries, Israelis studying in post-secondary and higher education institutions abroad totaled about 8,700 in 1991, compared to 8,500 in 1990 and 7,300 in 1987.

In recent decades, the U.S. has served as the primary host for Israelis studying abroad, but its share has declined in the past few years. In 1987, Israeli students in the U.S. (about 3,000), accounted for 41% of all Israelis studying abroad, while in 1991, the 3,100 Israeli

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* See National Science Board, *Science & Engineering Indicators, 1993*, Washington, D.C., U.S. Government Printing Office, 1993, (NSB 93-1), pp. 423-425.

** As noted above, the database includes only articles in scientific journals, and therefore probably covers university scientific activities in the natural sciences more fully than in the social sciences and humanities.

students in the U.S. accounted for only 36% of the total number studying abroad. Updated figures for 1992 show that the number of Israelis studying in the U.S. declined slightly from 1991, totaling about 3,000.* Large concentrations of Israeli students in 1991 were also found in West Germany (1,150), Italy (980), and England (870). Almost 20% of the students who studied abroad in 1991 studied in Eastern Europe, particularly in Romania and countries of the former Soviet Union. See Table 9.1.

c. UNESCO data relates to all the foreign students in a given country, without providing a breakdown by degree level and field of study. However, various national data sources help to form a picture of the Israeli student body abroad.

In the U.S., about 45% of the Israeli students in 1991 were working on postgraduate degrees, about 38% on undergraduate degrees, and about 13% on post-secondary diplomas, while 4% participated in other programs (English for foreigners, non-degree-granting programs, etc.). Almost one-quarter of the Israeli students in the U.S. in 1991 were studying engineering; 18%, humanities; 16%, social sciences; 16%, mathematics and natural sciences; and 15%, business management. Only about 5% studied in medicine-related fields; of these, most studied in paramedical fields and very few studied medicine. See Table 9.2.

In West Germany in 1990, Israeli students were more or less evenly divided among the following fields: humanities and sport, social sciences and law, mathematics and natural sciences, and medicine (including veterinary medicine).**

Very few Israeli students studied in the U.K. until the mid-1980's. In 1987, Israeli students in England numbered 280, of whom half were studying for postgraduate degrees. In recent years, the number of Israelis studying in the U.K. has increased rapidly; by 1991, their numbers had increased threefold, to 870, of whom 84% were studying for bachelor's degrees. From detailed data that we obtained on Israelis studying for bachelor's degrees at universities (who accounted for about two-thirds of all the Israelis studying for bachelor's degrees in the U.K.), it appears that most Israelis studying for bachelor's degrees in the U.K. are in the field of law.***

For Italy, we have no authorized data from an official source, but it is clear that most Israeli students there are studying medicine. It appears that a large share of the Israeli students in Romania are also studying medicine.

Doctoral degree recipients abroad

d. We have already seen that the largest concentration of Israeli students abroad is found in the U.S., and that half of these students are working on postgraduate degrees. Since the foundation of the state of Israel, it was traditional for Israeli university faculty to encourage promising students to do their doctoral work in the U.S., and some of departments apparently continue this tradition today. Since 1970, a relatively stable number of 100-120 Israelis complete doctoral degrees in the U.S. each year. Of the 117 Israeli doctoral recipients in the U.S. in 1992, about one-quarter specialized in the social sciences (not including business management), about 21% in engineering, and about 16% in mathematics and computer sciences. See Table 9.3.

e. Most of the Israelis who obtain doctoral degrees abroad do so in the U.S. By our estimate, their share amounts to 75% of all

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* This figure is taken from: Institute of International Education, *Open Doors – 1992/93*, New York, 1994. This publication is UNESCO's source on foreign students in the U.S.

** This data is taken from: German Ministry of Education and Science, *Basic & Structural Data – 1992/3*. Bonn, 1993.

*** The data on the U.K. in this section are based on the following sources:
The Department of Education & Science, "Students from Abroad in Great Britain", *Statistical Bulletin*, London, various years; and data processed for us by the Universities Statistical Record.

Table 1.12

Israeli Doctoral Recipients in Israel and in the U.S., by Field of Study 1979/80 to 1991/92

	1979/80 to 1983/84			1989/90 to 1991/92		
Field of study	**Israel [1]**	**U.S.[1]**	**Israel/U.S. ratio**	**Israel[1]**	**U.S.[1]**	**Israel/U.S. ratio**
Total	345	121	2.9	455	115	4.0
Of this:						
Social sciences[2]	27	31	0.9	31	27	1.2
Mathematics and computer sciences	25	12	2.1	35	16	2.2
Physical sciences	80	8	10.0	81	9	9.4
Biological sciences[3]	88	6	14.7	138	8	18.0
Engineering	41	29	1.4	57	24	2.4

See Tables 5.5 and 9.3.

1. The figures are annual averages for the period.
2. Does not include business management.
3. Includes agriculture but does not include medicine and paramedical studies.

Israelis obtaining doctoral degrees abroad. Their numbers are also significant when compared to doctoral degree recipients in Israel. Table 1.12 compares the number of doctoral degree recipients in Israel to the number of Israelis receiving doctoral degrees in the U.S., by field, in the early 1980's and the early 1990's. The number of doctoral degree recipients in Israel rose during this period, while the number of Israelis obtaining doctoral degrees in the U.S. remained stable or even declined slightly. As a result, the ratio of those receiving doctoral degrees in Israel to those receiving them in the U.S. rose from 2.9 in the early 1980's to 4 at the beginning of the 1990's. This ratio remained very low in the social sciences; for this field, even in the early 1990's, the number of doctoral recipients in Israel more or less equaled the number of Israelis obtaining doctoral degrees in the U.S. This ratio also remained relatively low for mathematics and the computer sciences and for engineering. In contrast, this ratio is quite high for the physical sciences, and particularly so for the life sciences, where obtaining a doctoral degree in Israel is apparently the generally accepted practice.

f. After the U.S., the U.K. is the next largest source of Israeli doctoral degree recipients. During 1988-1992, the period for which we have data, about 25 Israelis received doctoral degrees each year from universities in the U.K. The most popular field among these students was social sciences, in which about 7 Israelis received doctoral degrees each year (about 27% of all Israeli doctoral degree recipients in the U.K.). If we combine this number with the number of Israelis receiving doctorates in the social sciences in the U.S., the figure exceeds the number of social-science doctorates granted in Israel. About one-quarter of the doctoral degree recipients in the U.K. specialize in the humanities, about 4% in law, and the rest, about 44%, in mathematics, natural sciences, and engineering.*

* Data obtained from the Universities Statistical Record, as cited above.

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Chapter 2

The Potential for and the Acessibility to Undergraduate Studies

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Table 2.1

18 Year Olds, Twelfth Graders and Matriculants 1980/81 - 1992/93

	18 Year olds[1]	Twelfth grade pupils	of these: On matriculation track[2]	Pupils entitled to matriculation certificates: Internal[3]	External	Total[3]
1980/81	66,300	38,100	31,500	17,600	1,600	19,200
1981/82	68,400	41,300	33,900	18,800	1,700	20,500
1982/83	71,700	45,100	37,300	20,700	1,400	22,100
1983/84§	72,800	47,000	39,000	21,000	1,500	22,500
1984/85§	71,700	48,000	39,900	21,100	2,100	23,200
1985/86§	73,100	51,300	43,100	22,600	1,700	24,300
1986/87	76,500	53,600	43,800	24,600	1,300	25,900
1987/88	80,200	58,700	48,900	26,600	1,150	27,750
1988/89	84,000	61,500	50,700	27,900	1,000	28,900
1989/90	85,600	61,300	50,500	27,700	1,200	28,900
1990/91	89,800	63,700	53,100	30,400	1,300	31,700
1991/92	94,200	67,900	57,100	33,580	1,100	34,680
1992/93[4]	96,600	71,900	60,100	35,290	1,100	36,390

1. The figures refer to the average population in the calendar year overlapping the majority of the academic year.
2. See Technical Appendix.
3. The figures include resit examinees from previous years awarded in present year.
   The figures are an estimate of the PBC. See Technical Appendix.
4. Preliminary estimates.

Table 2.2

Internal Matriculants[1] by Sex, Continent of Origin and Track of Study 1983/84 - 1990/91

	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
Hebrew education								
Total	18,541	18,625	20,197	20,389	22,302	23,676	23,583	26,362
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sex								
Male	43.1	43.4	44.3	43.8	44.3	43.8	43.8	44.0
Female	56.9	56.6	55.7	56.2	55.7	56.2	56.2	56.0
Continent of origin								
Israel	28.6	28.9	31.5	32.3	34.3	35.2	35.4	37.2
Asia-Africa	37.0	37.3	35.6	35.3	33.2	33.1	33.1	33.2
Europe-America	34.4	33.7	33.0	32.4	32.5	31.7	31.5	29.6
Track of study								
General	78.9	79.2	79.0	77.7	77.5	77.6	79.5	33.2
Vocational	21.1	20.8	21.0	22.3	22.5	22.4	20.5	29.6
Arab education								
Total	2,450	2,441	2,399	2,351	2,491	2,354	2,524	3,215
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sex								
Male	55.2	55.3	56.2	53.9	53.0	52.0	49.2	49.0
Female	44.8	44.7	43.8	46.1	47.0	48.0	50.8	51.0
Track of study								
General	97.7	96.1	95.9	95.8	93.1	92.1	92.8	33.2
Vocational	2.3	3.9	4.1	4.2	6.9	7.9	7.2	29.6

1. From 1986/87 and onwards the data does not include resits from previous years.

Table 2.3

Pupils in Pre-Academic Preparatory Courses by Various Characteristics 1981/82 - 1992/93

	1981/82	1984/85	1988/89§	1989/90§	1990/91§	1991/92	1992/93
Total	3,066	3,483	5,024	6,001	6,784	7,669	7,789
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sex							
Men	..	..	53.2	50.0	48.0	45.2	48.6
Women	..	..	46.8	50.0	52.0	54.8	51.4
Type of institution							
University	87.8	63.3	44.6	40.9	38.4	32.1	32.0
Regional college	12.2	32.0	41.5	43.3	41.8	50.6	51.5
Teacher training college	-	4.7	13.9	15.7	19.8	17.3	16.6
Age							
Up to 20	..	..	5.7	6.8	7.7	5.0	4.3
21-22	..	..	39.8	38.9	40.6	44.6	40.5
23-24	..	..	40.1	35.2	36.2	35.6	39.6
25+	..	..	14.4	19.1	15.5	14.8	15.6
Continent of origin[1]							
Israel	..	..	22.9	29.4	25.6	20.8	25.3
Asia-Africa	..	..	53.8	49.3	50.6	53.1	50.3
Europe-America	..	..	23.3	21.3	23.8	26.1	24.4
Years of schooling							
Up to 11	..	..	14.6	13.7	9.9	7.4	10.6
12+	..	..	85.4	86.3	90.1	92.6	89.4
Matriculation prior to preparatory courses							
All exams	..	..	27.8	25.5	26.3	29.1	30.4
Passed part of exams	..	..	39.7	40.9	32.7	36.6	40.4
No exams	..	..	32.5	33.6	41.0	34.3	29.2
Percent "worthy of advancement" in each type of instiypetution							
Total	59.1	64.8	67.6	72.0	63.2	67.1	..
University	52.3	48.5	46.0	44.2	43.3	41.1	..
Regional college	89.6	92.5	88.0	95.5	71.6	79.9	..
Teacher training college	-	94.5	76.0	79.7	84.2	77.9	..

Source: The Association for the Advancement of Education up through 1984/85 and the Central Bureau of Statistics thereafter. See Technical Appendix.

1. Including non-Jews.

Table 2.4

Pupils in Preparatory Programs for New Immigrants in the Universities by Institution 1979/80 - 1992/93

	Institution						
	Total	Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev
1979/80	1,084	286	205	238	-	170	185
1980/81	743	230	152	158	-	89	114
1984/85	749	317	111	156	-	126	39
1985/86	637	347	58	114	-	118	-
1986/87	675	416	74	127	-	58	-
1987/88	619	345	89	116	-	69	-
1988/89	575	400	61	114	-	-	-
1989/90	724	522	101	101	-	-	-
1990/91	2,663	839	337	454	369	397	267
1991/92	2,150	763	239	438	350	289	71
1992/93	1,217	452	80	327	173	137	48

Source: Students' Authority, Ministry of Immigrant Absorption

Table 2.5

Pupils in Preparatory Programs for New Immigrants in the Universities by Continent of Emigration 1979/80 - 1992/93

	Continent of emigration							
	Total	Eastern Europe[1]	Western Europe	North America	South America	Asia	Africa	Other
1979/80	1,084	211	251	57	255	254	50	6
1980/81	743	140	191	37	170	164	38	3
1984/85	749	33	247	81	265	36	82	5
1985/86	647	24	164	59	213	31	102	54
1986/87	675	32	184	37	250	73	97	2
1987/88	619	97	121	34	219	55	92	1
1988/89	575	80	123	39	200	56	77	-
1989/90	724	271	142	30	216	28	34	3
1990/91	2,663	2,183	141	47	223	37	29	3
1991/92	2,150	1,825	145	32	100	12	34	2
1992/93	1,217	912	115	25	88	18	59	-

Source: Students' Authority, Ministry of Immigrant Absorption

1. Consists primarily of immigrants from the Commonwealth of Independent States.

Table 2.6

First-Time Examinees of the Psychometric Entrance Examination of the National Center for Testing and Evaluation by Various Characteristics 1986-1993

	1986	1987	1988	1989	1990	1991	1992	1993
Total	30,047	27,493	26,613	29,371	31,282	35,336	41,182	38,696
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sex								
Male	52.3	49.7	47.3	46.8	45.3	45.1	44.7	45.2
Female	47.7	50.3	52.7	53.2	54.7	54.9	55.3	54.8
Age								
Under 18	11.0	11.9	17.9	21.1	23.2	24.0	26.2	28.3
18-19	17.8	20.2	23.2	22.5	21.3	20.8	21.0	21.0
20-21	33.3	33.0	30.1	29.7	30.0	31.9	28.6	27.2
22-24	19.8	18.4	16.1	15.1	14.9	16.1	15.8	15.8
25-29	9.9	7.7	6.0	5.0	4.1	3.5	3.7	3.6
30+	8.3	8.7	6.6	6.6	6.4	3.7	4.7	4.1
Language of exam								
Hebrew	83.3	81.9	81.3	83.7	82.9	79.4	80.0	79.9
Arabic	7.6	8.7	10.1	9.4	9.3	6.0	8.2	9.8
Russian	0.4	0.3	0.4	0.4	2.3	11.4	8.9	7.9
Other & combined	8.6	9.2	8.2	6.5	5.5	3.3	2.9	2.4
Total examined in Hebrew	25,035	22,503	21,644	24,593	25,942	28,041	32,956	30,924
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Continent of origin[1]								
Born in Israel	85.9	85.7	87.5	87.3	89.0	90.8	91.2	92.4
Of these, father born in:								
Israel	25.1	27.5	30.9	31.8	32.8	35.3	36.0	37.3
Asia-Africa	28.4	28.2	27.4	25.6	27.0	26.2	26.1	25.5
Europe-America[2]	32.4	30.1	29.2	29.9	29.2	29.3	29.1	29.4
Born in Asia-Africa	4.2	4.1	3.0	2.7	2.1	1.6	1.7	1.4
Born in Europe-America[2]	9.9	10.2	9.5	10.0	8.9	7.6	7.0	6.4

Source: National Institute for Testing & Evaluation

1. Including non-Jews.
2. Incuding a small number of examinees from countries classified as "other".

Table 2.7

Candidates for Undergraduate Studies in Universities by the Results of the Applications 1979/80 - 1992/93

	Grand total	Results of applications				
		Admitted				
			of these:			
		Total	Studied[1]	Did not study	Rejected	Other
			Absolute numbers			
1979/80	24,639	16,174	11,884	4,290	7,659	806
1981/82	25,631	16,474	12,201	4,273	8,564	593
1982/83	26,615	16,709	12,132	4,577	9,128	778
1983/84	25,608	16,087	12,023	4,064	8,800	721
1984/85	26,205	16,652	11,489	5,163	9,048	505
1988/89	25,236	17,743	13,486	4,257	6,568	925
1989/90	25,046	18,253	13,990	4,263	5,739	1,054
1990/91	25,985	19,412	15,006	4,406	5,827	746
1991/92	27,816	21,988	17,112	4,876	5,755	73
1992/93	29,495	22,965	17,640	5,325	6,530	-
			Percentages			
1979/80	100.0	65.6	48.2	17.4	31.1	3.3
1981/82	100.0	64.3	47.6	16.7	33.4	2.3
1982/83	100.0	62.8	45.6	17.2	34.3	2.9
1983/84	100.0	62.8	47.0	15.9	34.4	2.8
1984/85	100.0	63.5	43.8	19.7	34.5	1.9
1988/89	100.0	70.3	53.4	16.9	26.0	3.7
1989/90	100.0	72.9	55.9	17.0	22.9	4.2
1990/91	100.0	74.7	57.7	17.0	22.4	2.9
1991/92	100.0	79.0	61.5	17.5	20.7	0.3
1992/93	100.0	77.9	59.8	18.1	22.1	-

1. The number of candidates admitted and studying is derived from the candidate files of the universities. See Technical Appendix.

Table 2.8

Applications for Undergraduate Studies in Universities by Institution and Results of the Applications 1979/80 - 1992/93

Institution and results of application	1979/80	1984/85	1988/89	1989/90	1990/91	1991/92	1992/93
Hebrew University - total	8,381	9,550	8,824	8,246	8,216	8,233	9,068
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Admitted and studied	28.6	25.0	33.3	37.4	38.3	36.2	35.3
Admitted, did not study	20.1	24.9	26.7	29.0	21.1	29.3	24.3
Rejected	48.6	49.9	39.7	32.9	39.9	34.5	40.4
Other	2.7	0.2	0.3	0.7	0.7	-	-
Technion - total	3,474	4,000	3,569	3,534	4,340	4,629	3,926
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Admitted and studied	40.1	39.8	45.9	47.9	46.2	43.5	41.8
Admitted, did not study	8.3	12.5	12.3	6.0	6.4	15.4	20.4
Rejected	41.7	44.2	35.0	30.0	32.0	36.9	37.8
Other	9.9	3.5	6.8	16.1	15.4	4.2	-
Tel-Aviv University - total	9,975	11,526	11,222	10,730	10,751	11,113	12,050
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Admitted and studied	32.0	28.3	33.5	35.4	35.9	44.6	40.4
Admitted, did not study	21.1	27.4	23.5	22.3	30.2	29.7	30.4
Rejected	43.0	43.1	32.8	31.0	30.8	25.7	29.2
Other	3.9	1.2	10.2	11.3	3.1	-	-
Bar-Ilan University - total	5,122	6,265	5,850	5,615	6,151	6,628	6,983
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Admitted and studied	40.2	23.3	32.3	39.5	42.7	47.2	44.6
Admitted, did not study	17.4	19.6	36.1	34.7	35.4	34.7	33.2
Rejected	33.4	50.4	30.1	24.1	20.4	18.1	22.2
Other	9.0	6.7	1.5	1.7	1.5	-	-
Haifa University - total	4,673	4,528	4,497	4,575	4,050	5,288	6,365
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Admitted and studied	34.8	36.9	43.2	43.8	43.8	45.0	47.1
Admitted, did not study	31.4	32.9	18.7	21.7	22.0	29.1	27.9
Rejected	27.7	24.1	27.1	26.0	24.2	25.9	25.0
Other	6.1	6.1	11.0	8.5	10.0	-	-
Ben-Gurion University - total	4,022	4,686	4,220	4,007	4,980	4,775	4,902
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Admitted and studied	23.0	25.2	32.6	30.5	31.6	35.0	37.2
Admitted, did not study	25.6	28.0	30.3	36.0	25.6	36.7	32.6
Rejected	43.5	41.5	34.5	29.5	35.9	28.3	30.2
Other	7.9	5.3	2.6	4.0	6.9	-	-

Table 2.9

Candidates and Freshman Students in Universities by Field of Study 1988/89 - 1992/93

Field of study	1988/89 Candidates	1988/89 Freshman students	1988/89 Average number of candidates per student	1989/90 Candidates	1989/90 Freshman students	1989/90 Average number of candidates per student
Grand total	25,236	13,486	1.9	25,046	13,989	1.8
Humanities - total	5,420	3,566	1.5	5,575	4,066	1.4
General humanities and N.E.C.	1,807	1,428	1.3	1,887	1,503	1.3
Languages, literatures and regional studies	1,540	1,131	1.4	1,752	1,409	1.2
Education and teacher training	1,096	515	2.1	1,080	581	1.9
Arts, crafts and applied arts	794	382	2.1	671	478	1.4
Special programmes and miscellaneous	183	110	1.7	185	95	1.9
Social sciences - total	7,519	3,882	1.9	7,207	3,826	1.9
Social sciences	5,821	3,552	1.6	5,759	3,454	1.7
Business and management	1,698	330	5.1	1,448	372	3.9
Law	2,154	499	4.3	1,925	502	3.8
Medicine - total	2,932	824	3.6	3,074	991	3.1
Medicine	1,403	357	3.9	1,269	332	3.8
Para-medical studies	1,529	467	3.3	1,805	659	2.7
Mathematics & natural sciences - total	2,716	1,969	1.4	2,798	2,133	1.3
Mathematics, statistics and cumputer sciences	1,326	896	1.5	1,279	875	1.5
Physical sciences	569	515	1.1	699	654	1.1
Biological sciences	821	558	1.5	820	604	1.4
Agriculture	303	210	1.4	299	191	1.6
Engineering and architecture	3,038	1,742	1.7	2,975	1,738	1.7
General studies	471	232	2.0	557	331	1.7
Not known	683	562	..	636	211	..

1. Data on first year students are based on the candidate files of the institutions. See Technical Appendix.

Table 2.9

Candidates and Freshman Students in Universities by Field of Study 1988/89 - 1992/93 (cont.)

	1990/91			1991/92			1992/93		
	Candi-dates	Fresh-man students	Average number of candi-dates per student	Candi-dates	Fresh-man students	Average number of candi-dates per student	Candi-dates	Fresh-man students	Average number of candi-dates per student
Grand total	25,985	15,006	1.7	27,816	17,112	1.6	29,495	17,640	1.7
Humanities - total	5,678	4,027	1.4	6,060	4,492	1.3	6,383	4,918	1.3
General humanities and N.E.C.	1,867	1,451	1.3	1,943	1,653	1.2	1,809	1,862	1.0
Languages, literatures and regional studies	1,625	1,278	1.3	1,856	1,480	1.3	1,935	1,679	1.2
Education and teacher training	1,047	595	1.8	1,128	658	1.7	1,494	618	2.4
Arts, crafts and applied arts	884	588	1.5	899	620	1.5	965	652	1.5
Special programmes and miscellaneous	255	115	2.2	234	81	2.9	180	107	1.7
Social sciences - total	7,380	4,047	1.8	7,785	4,440	1.8	8,897	5,017	1.8
Social sciences	5,777	3,614	1.6	6,075	3,947	1.5	7,141	4,516	1.6
Business and management	1,603	433	3.7	1,710	493	3.5	1,756	501	3.5
Law	1,554	410	3.8	2,049	868	2.4	3,051	846	3.6
Medicine - total	3,560	1,070	3.3	3,268	1,054	3.1	3,330	1,139	2.9
Medicine	1,352	357	3.8	1,187	333	3.6	1,149	374	3.1
Para-medical studies	2,208	713	3.1	2,081	721	2.9	2,181	765	2.9
Mathematics & natural sciences - total	3,279	2,453	1.3	3,815	3,005	1.3	3,272	2,659	1.2
Mathematics, statistics and cumputer sciences	1,624	1,162	1.4	2,055	1,602	1.3	1,800	1,447	1.2
Physical sciences	731	682	1.1	830	717	1.2	676	597	1.1
Biological sciences	924	609	1.5	930	686	1.4	796	615	1.3
Agriculture	351	196	1.8	325	195	1.7	312	198	1.6
Engineering and architecture	3,311	2,051	1.6	3,414	2,076	1.6	3,192	1,980	1.6
General studies	441	380	1.2	493	581	0.8	562	812	0.7
Not known	431	372	..	607	401	..	496	71	..

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Table 2.10

Candidates for Undergraduate Studies in Universities & Candidates per Student, by Selected Subjects of First Priority[1] 1990/91 - 1992/93

Subject of first priority	1990/91		1991/92		1992/93	
	Total candidates	Candidates per student[2]	Total candidates	Candidates per student[2]	Total candidates	Candidates per student[2]
Total	25,985	2.1	27,816	2.0	29,495	2.4
Humanities						
History	852	1.6	796	1.6	725	1.5
Hebrew lang. & lit.	464	1.6	493	1.6	522	1.8
Other lang.& lit.	797	1.9	941	1.8	912	2.2
Education	955	2.1	987	1.9	1,314	2.3
History of art	265	1.8	238	1.7	329	1.7
Theater	406	2.0	390	2.0	444	2.3
Social sciences						
Economics	1,409	2.2	1,490	2.1	1,638	2.6
Sociology	626	1.7	567	1.6	623	2.6
Political science	914	1.8	971	1.7	1,040	2.1
Psychology	755	2.6	785	2.1	958	2.6
Social work	904	2.2	1,040	2.0	1,145	2.6
Geography	326	1.6	327	1.6	313	1.8
Business administration	505	4.5	593	6.3	468	8.1
Accounting	746	2.6	723	2.4	854	3.4
General & public admin.	352	3.1	394	2.6	434	3.0
Law	1,554	3.8	2,049	2.4	3,051	4.9
Medicine						
General medicine	1,151	4.0	1,030	3.8	961	4.7
Nursing	1,059	3.6	936	4.0	867	4.4
Occupational therapy	319	3.3	312	2.8	422	4.1
Physiotherapy	381	2.6	423	2.4	449	3.5
Mathematics & the natural sciences						
Mathematics	786	1.6	1,092	1.4	951	1.8
Computer science	630	1.8	720	1.6	559	2.0
Chemistry	310	1.8	376	1.7	326	2.0
Biology	924	2.0	930	1.9	796	2.3
Engineering & architecture						
Civil engineering	357	1.7	358	1.9	332	1.9
Mechanical engineering	599	1.8	530	1.7	446	1.6
Electronic engineering	1,002	2.0	1,030	1.9	1,015	1.8
Industrial & management eng.	578	2.2	664	2.1	625	2.0
Architecture & town planning	320	2.7	343	3.1	360	3.3

1. Only subjects with 300 or more candidates in 1992/93 were included.
2. The denominator of this ratio is different than the denominator of the ratio "average candidates per student" in Table 2.9. The denominator here refers to candidates accepted and studying their subject of first priority, while the denominator in Table 2.9 refers to candidates accepted and studying a certain field irrespective of whether the specific subject studied was their first priority or not.

Table 2.11

Candidates for Undergraduate Studies in Universities by the Results of the Applications, Sex, Age, Population Group and Continent of Origin 1989/90

Sex, age, population group & origin	Results of the applications				
	Total	Admitted & studied[1]	Admitted but didn't study	Rejected	Other
Total	25,046	13,990	4,263	5,739	1,054
Percentages	100.0	100.0	100.0	100.0	100.0
Sex					
Male	47.0	46.0	45.0	50.8	47.1
Female	53.0	54.0	55.0	49.2	52.9
Age					
Up to 19	17.3	15.5	10.6	25.8	23.5
20-21	25.9	28.8	24.5	20.8	18.6
22-24	33.6	34.6	37.9	29.2	26.5
25-29	13.5	12.1	15.2	15.4	15.0
30-34	4.9	4.3	6.3	4.9	8.5
35-44	4.3	4.3	4.9	3.5	6.3
45+	0.5	0.4	0.6	0.4	1.6
Median age	22.6	22.5	23.2	22.3	22.9
Population group					
Jews	87.6	92.6	91.2	71.8	91.7
Non-Jews	12.4	7.4	8.8	28.2	8.3
Continent of origin - Jews					
Total	100.0	100.0	100.0	100.0	100.0
Born in Israel	84.9	85.4	83.3	85.3	82.5
Of these, father born in:					
Israel	29.2	30.6	29.7	24.3	28.6
Asia-Africa	27.0	24.8	27.3	34.5	24.6
Europe-America	28.7	30.0	26.3	26.5	29.3
Born in Asia-Africa	3.4	3.0	3.9	4.2	3.0
Born in Europe-America	11.7	11.6	12.8	10.5	14.5

1. The number of candidates admitted and studying is derived from the candidate files of the universities. See Technical Appendix.

Chapter 3

Students in Institutions of Higher Education

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Table 3.1

Students in Institutions of Higher Education[1] by Level of Degree and Type of Institution 1980/81 - 1992/93

	Level of degree and type of institution						
		Undergraduate students at:					
	Grand total	Total	Univer-sities	Regional colleges[2]	Teacher training colleges[3]	Other institutions	Postgraduate students at universities[4]
1980/81	57,873	42,943	40,910	..	[2]712	1,321	14,930
1981/82	59,242	43,987	41,960	..	[2]732	1,295	15,255
1982/83	60,865	45,600	43,380	..	[2]702	1,518	15,265
1983/84	63,092	47,297	44,815	..	[2]861	1,621	15,795
1984/85	64,036	47,236	44,355	..	[2]1,033	1,848	16,800
1985/86	68,236	50,821	44,945	..	3,967	1,909	17,415
1986/87	69,437	51,417	45,480	..	4,058	1,879	18,020
1987/88§	71,981	53,521	45,730	..	5,143	2,648	18,460
1988/89§	73,176	53,976	45,880	..	4,767	3,329	19,200
1989/90	76,056	55,246	46,960	..	4,746	3,540	20,810
1990/91	80,749	58,309	48,750	..	5,701	3,858	22,440
1991/92	90,951	66,261	53,950	..	7,685	4,626	24,690
1992/93	99,790	73,430	57,197	2,245	8,043	5,945	26,360

1. Students at the Open University are not included. See Table 3.13 for data on students at the Open University.
2. Prior to 1992/93 no figures are available on the number of students studying in regional colleges under the academic auspices of one of the universities. These students were included in the figures on students of the parent university, except for students in the S. Sapir Regional College of the Negev, the Municipal College of Eilat and the Menashe Regional College who, for technical reasons, were included in the student figures of the parent university. In 1992/93 the number of students in the academic track of the three abovementioned colleges was 812. The remaining students in regional colleges (1,433) were subtracted from the number of students in universities in 1992/93 in this table. See Technical Appendix.
3. Includes students toward the equivalent of a second degree, third degree or diploma.
4. Beginning in 1985/86 the data includes students in all years of study in a program leading towards a bachelors of education (B.ed.) degree. Prior to this year the figures include all students in programs for teaching at the general secondary level (grades 7 - 10) and fourth year students only of other academic programs of study.

Table 3.2

Students in Universities[1], by Level of Degree 1948/49 - 1992/93

	Level of degree					
		Bachelor's degree				
	Grand total	Total	Thereof: Freshman year	Master's degree	Doctorate	Diploma
1948/49	1,635	1,549	190	..[2]	86	–
1949/50	2,450	2,336	1,030	..[2]	114	–
1959/60	9,275	8,348	2,925	..[2]	927	–
1969/70	35,374	28,053	9,854	5,156	1,346	819
1974/75	49,849	36,051	10,246	9,867	2,719	1,212
1975/76	50,170	37,350	11,600	8,870	2,750	1,200
1976/77	50,510	37,550	12,750	8,715	2,965	1,280
1977/78	51,580	38,650	13,330	8,640	2,970	1,320
1978/79	52,740	39,010	12,840	9,370	2,970	1,390
1979/80	54,480	40,250	13,510	10,050	2,930	1,250
1980/81	55,840	40,910	13,550	10,600	3,070	1,260
1981/82	57,215	41,960	13,070	11,010	3,075	1,170
1982/83	58,645	43,380	13,600	11,155	3,000	1,110
1983/84	60,610	44,815	13,790	11,880	3,065	850
1984/85	61,155	44,355	13,310	12,765	3,215	820
1985/86	62,360	44,945	13,420	13,165	3,375	875
1986/87	63,500	45,480	13,990	13,660	3,410	950
1987/88	64,190	45,730	13,660	14,065	3,625	770
1988/89	65,080	45,880	14,050	14,510	3,820	870
1989/90	67,770	46,960	14,720	16,100	3,910	800
1990/91	71,190	48,750	15,425	17,140	4,360	940
1991/92	78,640	53,950	18,440	18,860	4,680	1,150
1992/93	84,990	58,630	19,440	20,330	4,930	1,100

1. Including students in academic tracks of regional colleges appearing in the Students File of the universities. See footnote 2 to Table 3.1.
2. Students for Master's degree are included in Bachelor's degree.

Table 3.3

Students in Universities[1] by Institution and Level of Degree 1974/75 - 1992/93

	Institution							
	Total	Hebrew Univ.	Technion	Tel-Aviv Univ.	Bar-Ilan Univ.	Haifa Univ.	Ben-Gurion Univ. of the Negev	Weizmann Institute of Science
				Grand total				
1974/75	49,849	13,516	8,453	12,813	6,527	4,713	3,247	580
1979/80	54,480	13,570	7,580	14,380	8,070	6,140	4,250	490
1984/85	61,155	14,385	8,060	18,020	8,780	6,330	5,080	500
1985/86	62,360	14,860	8,540	18,390	8,640	6,350	5,050	530
1986/87	63,500	15,370	8,710	18,800	8,480	6,400	5,170	570
1987/88	64,190	15,460	8,760	18,630	8,710	6,520	5,490	620
1988/89	65,080	16,190	8,730	18,730	8,830	6,540	5,410	650
1989/90	67,770	16,780	9,080	19,270	9,330	6,780	5,890	640
1990/91	71,190	17,700	9,770	19,440	10,200	7,030	6,410	640
1991/92	78,640	18,610	10,280	21,530	11,930	8,120	7,490	680
1992/93	84,990	19,130	10,470	23,440	13,320	9,670	8,220	740
				Bachelor's degree				
1974/75	36,051	8,559	5,777	8,943	5,770	4,119	2,883	–
1979/80	40,250	8,700	5,400	10,350	6,750	5,350	3,700	–
1984/85	44,355	9,070	6,000	12,975	6,800	5,410	4,100	–
1985/86	44,945	9,550	6,250	13,000	6,650	5,375	4,120	–
1986/87	45,480	9,850	6,430	13,000	6,500	5,440	4,260	–
1987/88	45,730	9,900	6,400	12,800	6,670	5,450	4,510	–
1988/89	45,880	10,320	6,410	12,650	6,670	5,350	4,480	–
1989/90	46,960	10,600	6,600	12,770	6,780	5,400	4,810	–
1990/91	48,750	10,960	7,060	12,630	7,450	5,570	5,080	–
1991/92	53,950	11,420	7,440	14,290	8,730	6,360	5,710	–
1992/93	58,630	11,770	7,590	15,420	9,890	7,570	6,390	–
				Master's degree				
1974/75	9,867	3,086	2,250	3,120	543	394	290	184
1979/80	10,050	3,130	1,740	3,100	1,010	480	420	170
1984/85	12,765	3,840	1,640	4,120	1,550	715	720	180
1985/86	13,165	3,850	1,820	4,400	1,550	745	610	190
1986/87	13,660	4,000	1,820	4,700	1,500	790	630	220
1987/88	14,065	4,020	1,870	4,750	1,520	880	805	220
1988/89	14,510	4,220	1,800	4,940	1,620	960	750	220
1989/90	16,100	4,630	1,900	5,450	1,940	1,130	860	190
1990/91	17,140	4,890	2,070	5,650	2,070	1,190	1,080	190
1991/92	18,860	5,330	2,170	5,980	2,410	1,470	1,300	200
1992/93	20,330	5,440	2,200	6,700	2,550	1,810	1,400	230

Table 3.3

Students in Universities[1] by Institution and Level of Degree 1974/75 - 1992/93 (cont.)

	Institution							
	Total	Hebrew Univ.	Technion	Tel-Aviv Univ.	Bar-Ilan Univ.	Haifa Univ.	Ben-Gurion Univ. of the Negev	Weizmann Institute of Science
				Doctorate				
1974/75	2,719	1,356	420	416	131	–	–	396
1979/80	2,930	1,340	350	630	210	10	70	320
1984/85	3,215	1,300	360	750	300	25	160	320
1985/86	3,375	1,310	410	800	310	45	160	340
1986/87	3,410	1,320	400	800	330	50	160	350
1987/88	3,625	1,370	440	830	370	70	145	400
1988/89	3,820	1,470	470	840	390	80	140	430
1989/90	3,910	1,420	520	850	410	90	170	450
1990/91	4,360	1,660	580	940	430	110	190	450
1991/92	4,680	1,690	610	1,030	490	120	260	480
1992/93	4,930	1,720	640	1,070	560	120	310	510
				Diploma				
1974/75	1,212	515	6	334	83	200	74	–
1979/80	1,250	400	90	300	100	300	60	–
1984/85	820	175	60	175	130	180	100	–
1985/86	875	150	60	190	130	185	160	–
1986/87	950	200	60	300	150	120	120	–
1987/88	770	170	50	250	150	120	30	–
1988/89	870	180	50	300	150	150	40	–
1989/90	800	130	60	200	200	160	50	–
1990/91	940	190	60	220	250	160	60	–
1991/92	1,150	170	60	230	300	170	220	–
1992/93	1,100	200	40	250	320	170	120	–

1. Including students in academic tracks of regional colleges appearing in the Students File of the universities. See footnote 2 to Table 3.1.

Table 3.4

Students[1] in Universities, by Level of Degree and Institution 1992/93

Institution	Grand total	Level of degree: Bachelor's degree: Total	Thereof: Freshman year	Master's degree	Doctorate	Diploma
			Absolute numbers			
Total	84,990	58,630	19,440	20,330	4,930	1,100
Hebrew University	19,130	11,770	4,090	5,440	1,720	200
Technion	10,470	7,590	1,640	2,200	640	40
Tel-Aviv University	23,440	15,420	4,740	6,700	1,070	250
Bar-Ilan University	13,320	9,890	3,230	2,550	560	320
Haifa University	9,670	7,570	3,290	1,810	120	170
Ben-Gurion University of the Negev	8,220	6,390	2,450	1,400	310	120
Weizmann Institute of Science	740	–	–	230	510	–
			Percentages			
Total	100.0	69.0	22.9	23.9	5.8	1.3
Hebrew University	100.0	61.5	21.4	28.4	9.0	1.0
Technion	100.0	72.5	15.7	21.0	6.1	0.4
Tel-Aviv University	100.0	65.8	20.2	28.6	4.6	1.1
Bar-Ilan University	100.0	74.2	24.2	19.1	4.2	2.4
Haifa University	100.0	78.3	34.0	18.7	1.2	1.8
Ben-Gurion University of the Negev	100.0	77.7	29.8	17.0	3.8	1.5
Weizmann Institute of Science	100.0	–	–	31.1	68.9	–
Total	100.0	100.0	100.0	100.0	100.0	100.0
Hebrew University	22.5	20.1	21.0	26.8	34.9	18.2
Technion	12.3	12.9	8.4	10.8	13.0	3.6
Tel-Aviv University	27.6	26.3	24.4	33.0	21.7	22.7
Bar-Ilan University	15.7	16.9	16.6	12.5	11.4	29.1
Haifa University	11.4	12.9	16.9	8.9	2.4	15.5
Ben-Gurion University of the Negev	9.7	10.9	12.6	6.9	6.3	10.9
Weizmann Institute of Science	0.9	–	–	1.1	10.3	–

1. Including students in academic tracks of regional colleges appearing in the Students File of the universities. See footnote 2 to Table 3.1.

Table 3.5

Students[1] in Universities by Level of Degree and Field of Study 1974/75 - 1992/93

Field of study	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Total				
Grand total	49,849	54,480	61,155	62,360	63,500	67,770	71,190	78,640	84,990
Humanities - total	15,249	16,715	18,094	18,498	18,135	18,776	19,608	22,122	24,061
General humanities	5,056	5,703	6,618	7,330	7,284	6,980	7,000	8,547	9,745
Languages, literature and regional studies	5,016	4,720	4,977	4,976	4,887	5,169	5,357	5,721	6,107
Education and teacher training	3,608	4,293	4,175	4,007	3,728	4,260	4,804	5,061	5,244
Arts, crafts and applied arts	1,366	1,782	2,043	1,883	1,879	1,926	1,984	2,247	2,394
Special courses and miscellaneous	203	217	281	302	357	441	463	546	571
Social sciences - total	13,163	15,717	16,865	16,448	17,381	20,040	20,867	22,453	24,702
Social sciences	11,513	12,631	13,166	12,574	13,226	16,215	16,836	18,178	19,799
Business and management	1,650	3,086	3,699	3,874	4,155	3,825	4,031	4,275	4,903
Law	1,845	2,061	2,599	2,511	2,360	2,291	2,151	2,706	3,126
Medicine - total	2,323	3,083	4,223	4,589	4,789	5,126	5,482	5,749	6,282
Medicine	1,802	2,194	2,659	2,806	2,682	2,725	2,821	2,889	3,175
Para-medical studies	521	889	1,564	1,783	2,107	2,401	2,661	2,860	3,107
Mathematics and natural sciences - total	7,625	7,429	9,727	9,860	10,254	10,494	11,290	13,328	14,116
Mathematics, statistics and computer sciences	2,892	3,070	4,531	4,432	4,365	3,891	4,268	5,491	6,144
Physical sciences	2,362	1,908	2,089	2,378	2,646	3,260	3,509	3,865	3,843
Biological sciences	2,371	2,451	3,107	3,050	3,243	3,343	3,513	3,972	4,129
Agriculture	956	1,482	1,199	1,198	1,129	1,272	1,422	1,336	1,311
Engineering and architecture	8,688	7,993	8,448	9,256	9,452	9,771	10,370	10,946	11,392

Table 3.5

Students[1] in Universities by Level of Degree and Field of Study 1974/75 - 1992/93 (cont.)

Field of study	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Bachelor's degree				
Total	36,051	44,250	44,355	44,945	45,480	46,960	48,750	53,950	58,630
Humanities - total	11,184	12,304	13,263	13,625	13,147	13,032	13,568	15,313	16,804
General humanities	3,973	4,453	5,589	5,772	5,708	5,158	5,167	6,544	7,561
Languages, literature and regional studies	3,968	3,770	3,726	3,930	3,850	4,014	4,145	4,424	4,745
Education and teacher training	1,967	2,458	2,262	2,198	1,848	2,057	2,410	2,146	2,185
Arts, crafts and applied arts	1,192	1,566	1,597	1,598	1,548	1,547	1,608	1,854	1,959
Special courses and miscellaneous	–	57	89	127	193	256	238	345	354
Social sciences - total	10,021	11,892	12,153	11,693	12,163	13,899	14,159	14,983	16,623
Social sciences	9,597	10,386	10,379	9,903	10,449	12,622	12,932	13,727	15,133
Business and management	424	1,506	1,774	1,790	1,714	1,277	1,227	1,256	1,490
Law	1,607	1,839	2,439	2,330	2,176	2,086	1,929	2,470	2,861
Medicine - total	1,583	1,996	2,662	2,897	3,069	3,086	3,351	3,532	3,796
Medicine	1,155	1,248	1,331	1,447	1,440	1,112	1,136	1,129	1,232
Para-medical studies	429	748	1,331	1,450	1,629	1,974	2,215	2,403	2,564
Mathematics and natural sciences - total	4,508	4,750	6,386	6,434	6,581	6,461	6,952	8,544	9,144
Mathematics, statistics and computer sciences	2,209	2,490	3,814	3,664	3,534	2,927	3,244	4,310	4,952
Physical sciences	1,088	997	1,153	1,408	1,560	1,976	2,073	2,268	2,159
Biological sciences	1,211	1,263	1,419	1,362	1,487	1,558	1,635	1,966	2,033
Agriculture	721	1,140	754	754	703	751	846	740	671
Engineering and architecture	6,429	6,329	6,698	7,212	7,424	7,645	7,945	8,368	8,731

Table 3.5

Students[1] in Universities by Level of Degree and Field of Study 1974/75 - 1992/93 (cont.)

Field of study	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Master's degree				
Total	9,867	10,050	12,765	13,165	13,860	16,100	17,140	18,860	20,330
Humanities - total	2,325	2,385	3,089	3,306	3,410	4,009	4,097	4,676	5,185
General humanities	803	799	996	1,183	1,197	1,663	1,322	1,460	1,620
Languages, literature and regional studies	744	600	715	732	740	826	882	969	994
Education and teacher training	602	702	1,021	1,102	1,089	1,396	1,489	1,835	2,143
Arts, crafts and applied arts	146	157	255	234	279	311	298	306	346
Special courses and miscellaneous	–	47	102	55	105	115	106	106	82
Social sciences - total	2,789	3,385	4,250	4,292	4,691	5,672	6,170	6,843	7,423
Social sciences	1,603	1,841	2,323	2,335	2,407	3,193	3,450	3,994	4,171
Business and management	1,186	1,544	1,927	1,957	2,284	2,479	2,720	2,849	3,252
Law	173	151	166	136	148	171	182	196	216
Medicine - total	707	1,074	1,544	1,632	1,498	1,861	1,905	1,984	2,207
Medicine	628	947	1,340	1,350	1,199	1,476	1,538	1,596	1,762
Para-medical studies	78	127	204	282	299	385	367	388	445
Mathematics and natural sciences - total	1,661	1,386	1,788	1,849	1,926	2,279	2,395	2,648	2,711
Mathematics, statistics and computer sciences	486	390	498	552	603	676	700	827	827
Physical sciences	583	371	460	458	480	707	768	828	846
Biological sciences	592	625	830	839	843	896	927	993	1,038
Agriculture	124	217	294	279	251	357	377	394	435
Engineering and architecture	2,085	1,582	1,634	1,671	1,671	1,751	2,014	2,119	2,153

Table 3.5

Students[1] in Universities by Level of Degree and Field of Study 1974/75 - 1992/93 (cont.)

Field of study	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Doctorate				
Total	2,719	2,930	3,215	3,375	3,410	3,910	4,360	4,680	4,930
Humanities - total	574	812	797	847	803	1,004	1,111	1,134	1,165
General humanities	270	437	363	374	356	461	511	542	563
Languages, literature and regional studies	238	249	254	274	249	278	280	275	286
Education and teacher training	38	76	132	147	147	194	239	228	226
Arts, crafts and applied arts	29	47	45	51	49	68	78	87	89
Special courses and miscellaneous	–	3	3	1	2	3	3	2	1
Social sciences - total	256	299	322	341	345	429	477	520	521
Social sciences	218	261	280	291	293	360	393	424	435
Business and management	38	38	42	50	52	69	84	96	86
Law	60	62	45	45	36	34	40	40	49
Medicine - total	24	84	54	60	74	179	200	215	240
Medicine	13	67	3	9	32	137	147	164	181
Para-medical studies	11	17	51	51	42	42	53	51	59
Mathematics and natural sciences - total	1,442	1,292	1,501	1,544	1,614	1,725	1,922	2,110	2,242
Mathematics, statistics and computer sciences	197	226	193	195	197	273	318	343	348
Physical sciences	684	580	482	500	520	563	653	754	836
Biological sciences	561	486	826	849	897	889	951	1,013	1,058
Agriculture	97	85	154	265	169	164	199	202	205
Engineering and architecture	265	296	342	373	342	375	411	459	508

Table 3.5

Students[1] in Universities by Level of Degree and Field of Study 1974/75 - 1992/93 (cont.)

Field of study	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Diploma				
Total	1,212	1,250	820	875	950	800	940	1,150	1,100
Humanities - total	1,134	1,108	727	720	726	731	832	999	907
General humanities	–	–	–	1	–	–	–	1	–
Languages, literature and regional studies	53	77	68	40	39	51	50	53	82
Education and teacher training	994	909	589	560	630	613	666	852	691
Arts, crafts and applied arts	–	–	–	–	–	–	–	–	–
Special courses and miscellaneous	–	122	70	119	57	67	116	93	134
Social sciences - total	73	142	56	122	131	40	61	107	135
Social sciences	67	140	41	45	45	40	61	33	60
Business and management	6	2	15	77	86	–	–	74	75
Law	–	–	–	–	–	–	–	–	–
Medicine - total	–	–	–	–	–	–	26	18	39
Medicine	–	–	–	–	–	–	–	–	–
Para-medical studies	–	–	–	–	–	–	26	18	39
Mathematics and natural sciences - total	5	–	37	33	93	29	21	26	19
Mathematics, statistics and computer sciences	–	–	25	21	19	15	6	11	17
Physical sciences	5	–	12	12	74	14	15	15	2
Biological sciences	–	–	–	–	–	–	–	–	–
Agriculture	–	–	–	–	–	–	–	–	–
Engineering and architecture	–	–	–	–	–	–	–	–	–

1. Including students in academic tracks of regional colleges appearing in the Students File of the universities. See footnote 2 to Table 3.1.

Table 3.6

Students in Universities[1] by Institution and Field of Study 1992/93

Field of study	Total	Institution						
		Hebrew University	Technion	Tel-Aviv University[2]	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev	Weizmann Institute of Science
Grand total	84,990	19,130	10,470	23,440	13,320	9,670	8,220	740
Humanities - total	24,061	5,651	226	6,865	5,094	4,575	1,642	8
General humanities	9,745	1,769	–	3,226	1,962	2,130	658	–
Languages, literature and regional studies	6,107	2,021	–	953	1,323	1,411	399	–
Education and teacher training	5,244	1,064	226	1,101	1,547	713	585	8
Arts, crafts and applied arts	2,394	350	–	1,585	178	281	–	–
Special courses and miscellaneous	571	447	–	–	84	40	–	–
Social sciences - total	24,702	5,865	344	7,271	5,996	3,489	1,737	–
Social sciences	19,799	5,356	250	4,082	4,885	3,489	1,737	–
Business and management	4,903	509	94	3,189	1,111	–	–	–
Law	3,126	969	–	1,400	527	230	–	–
Medicine - total	6,282	1,970	844	2,609	–	128	731	–
Medicine	3,175	832	844	1,066	–	–	433	–
Para-medical studies	3,107	1,138	–	1,543	–	128	298	–
Mathematics and natural sciences - total	14,116	3,364	1,947	3,718	1,703	1,248	1,404	732
Mathematics, statistics and computer sciences	6,144	1,079	1,144	1,527	730	1,086	468	110
Physical sciences	3,843	1,082	580	893	451	–	563	274
Biological sciences	4,129	1,203	223	1,298	522	162	373	348
Agriculture	1,311	1,311	–	–	–	–	–	–
Engineering and architecture	11,392	–	7,109	1,577	–	–	2,706	–

1. Including students in academic tracks of regional colleges appearing in the Students File of the universities. See footnote 2 to Table 3.1.
2. Including the "New York Program" towards an M.D. degree (213 students).

Table 3.7

Students in Universities[1] by Level of Degree and Field of Study 1992/93

Field of study	Grand total	Level of degree				
		Bachelor's degree		Master's degree	Doctorate	Diploma
		Total	Thereof: Freshman year			
Grand total	84,990	58,630	19,440	20,330	4,930	1,100
Humanities - total	24,061	16,804	6,148	5,185	1,165	907
General humanities	9,745	7,561	3,425	1,620	563	–
Languages, literature and regional studies	6,107	4,745	1,361	994	286	82
Education and teacher training	5,244	2,185	642	2,143	226	691
Arts, crafts and applied arts	2,394	1,959	595	346	89	–
Special courses and miscellaneous	571	354	125	82	1	134
Social sciences - total	24,702	16,623	5,680	7,423	521	135
Social sciences	19,799	15,133	5,200	4,171	435	60
Business and administration	4,903	1,490	480	3,252	86	75
Law	3,126	2,861	869	216	49	–
Medicine - total	6,282	3,796	1,175	2,207	240	39
Medicine[2]	3,175	1,232	425	1,762	181	–
Para-medical studies	3,107	2,564	750	445	59	39
Mathematics and natural sciences - total	14,116	9,144	3,207	2,711	2,242	19
Mathematics, statistics and computer sciences	6,144	4,952	1,751	827	348	17
Physical sciences	3,843	2,159	707	846	836	2
Biological sciences	4,129	2,033	749	1,038	1,058	–
Agriculture	1,311	671	226	435	205	–
Engineering and architecture	11,392	8,731	2,135	2,153	508	–

1. Including students in academic tracks of regional colleges appearing in the Students File of the universities. See footnote 2 to Table 3.1.
2. Including the "New York Program" towards an M.D. degree at Tel Aviv University (213 students).

Table 3.8

Freshman Year Students in Universities[1] by Field of Study 1969/70 - 1992/93

	Field of study							
	Total	Humanities	Social sciences	Law	Medicine & para-medicine	Mathematics & natural sciences	Agriculture	Engineering & architecture
					Absolute numbers			
1969/70	9,152	3,005	2,953	440	263	1,135	135	1,221
1974/75	10,134	3,232	2,983	335	403	1,428	254	1,499
1979/80	13,510	4,283	3,850	662	594	2,067	392	1,662
1984/85	13,310	3,886	3,461	559	799	2,449	293	1,863
1985/86	13,420	3,959	3,476	470	832	2,442	309	1,932
1986/87	13,990	4,290	3,885	586	945	2,296	190	1,798
1987/88	13,660	4,182	3,952	420	852	2,120	248	1,886
1988/89	14,050	3,975	4,308	472	861	2,204	252	1,978
1989/90	14,720	4,260	4,470	493	1,061	2,317	262	1,857
1990/91	15,425	4,337	4,480	411	1,102	2,673	326	2,096
1991/92	18,440	5,493	4,958	861	1,062	3,541	271	2,254
1992/93	19,440	6,148	5,680	869	1,175	3,207	226	2,135
					Percentages			
1969/70	100.0	32.8	32.3	4.8	2.9	12.4	1.5	13.3
1974/75	100.0	31.9	29.4	3.3	4.0	14.1	2.5	14.8
1979/80	100.0	31.7	28.5	4.9	4.4	15.3	2.9	12.3
1984/85	100.0	29.2	26.0	4.2	6.0	18.4	2.2	14.0
1985/86	100.0	29.5	25.9	3.5	6.2	18.2	2.3	14.4
1986/87	100.0	30.7	27.8	4.2	6.8	16.4	1.4	12.9
1987/88	100.0	30.6	28.9	3.1	6.2	15.5	1.8	13.8
1988/89	100.0	28.3	30.7	3.4	6.1	15.7	1.8	14.1
1989/90	100.0	28.9	30.4	3.3	7.2	15.7	1.8	12.6
1990/91	100.0	28.1	29.0	2.7	7.1	17.3	2.1	13.6
1991/92	100.0	29.8	26.9	4.7	5.8	19.2	1.5	12.2
1992/93	100.0	31.6	29.2	4.5	6.0	16.5	1.2	11.0

1. Including students in academic tracks of regional colleges appearing in the Students File of the universities. See footnote 2 to Table 3.1.

Table 3.9

Enrollment in Universities[1] Among 20-29 Age Group[2] by Sex, Age and Continent of Origin (Jews) 1964/65 - 1989/90

Sex, age and continent of origin	1964/65	1969/70	1974/75	1980/81	1984/85	1988/89	1989/90
	Percentage of aged 20 - 29 in the Jewish population						
Total	3.8	6.3	7.2	6.7	7.6	8.2	8.6
Sex							
Men	5.4	7.0	8.0	7.0	7.5	7.7	7.8
Women	2.8	5.6	6.3	6.5	7.6	8.7	9.4
Age							
20-24	5.6	8.1	9.0	8.2	8.9	9.4	9.7
25-29	2.5	3.5	5.1	5.4	6.2	6.8	7.4
Continent of origin							
Born in Israel - total	8.1	9.9	9.5	7.2	8.2	8.7	8.8
Father born in: Israel	5.2	7.5	10.0	..	13.4	15.2	15.0
Asia-Africa	1.6	2.5	3.0	..	3.7	4.0	4.2
Europe-America	10.7	12.6	14.0	..	14.9	15.3	15.3
Born in Asia-Africa	0.8	1.6	2.1	2.8	2.8	2.8	2.4
Born in Europe-America	5.3	9.8	8.4	9.1	8.3	8.3	10.2

1. Includes students at all degree levels. Data are based on a census of students up to 1974/5, on the matching of the Students File with the Population Register for 1980/81 and 1989/90, and those for 1984/85 and 1988/89 - on matching the Students File with the file of the Census of Population and Housing 1983.
2. The majority of the students belong to this age group (about 69% in 1989/90).

Table 3.10

Students in Universities[1] by Population Group and Continent of Origin 1969/70 - 1989/90

Population group and continent of origin	1969/70	1972/73	1974/75	1980/81	1982/83	1984/85	1988/89	1989/90
				Absolute numbers				
Grand total	33,383	44,362	49,849	55,840	58,645	61,155	65,080	67,770
Jews - total	32,872	43,372	48,550	53,216	55,420	57,058	61,240	63,839
Born in Israel, total	18,610	26,919	31,344	37,889	41,169	44,032	50,462	51,710
Father born in: Israel	1,917	2,762	3,648	6,279	7,800	9,846	15,188	17,109
Asia-Africa	1,092	2,417	3,586	7,663	9,090	10,274	12,493	13,853
Europe-America	15,601	21,741	24,109	23,947	24,279	23,912	22,781	20,748
Born in Asia-Africa	3,410	4,244	4,416	4,204	3,812	3,486	2,511	2,617
Born in Europe-America	10,853	12,208	12,790	11,122	10,439	9,540	8,267	9,512
Non-Jews - total	511	990	1,299	2,625	3,225	4,097	3,840	3,931
				Percentages				
Grand total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Jews - total	98.5	97.8	97.4	95.3	94.5	93.3	94.1	94.2
Born in Israel, total	55.7	60.7	62.9	67.9	70.2	72.0	77.5	76.3
Father born in: Israel	5.7	6.2	7.3	11.2	13.3	16.1	23.3	25.2
Asia-Africa	3.3	5.4	7.2	13.7	15.5	16.8	19.2	20.4
Europe-America	46.7	49.0	48.4	42.9	41.4	39.1	35.0	30.6
Born in Asia-Africa	10.2	9.6	8.9	7.5	6.5	5.7	3.9	3.9
Born in Europe-America	32.5	27.5	25.7	19.9	17.8	15.6	12.7	14.0
Non-Jews - total	1.5	2.2	2.6	4.7	5.5	6.7	5.9	5.8

1. See footnote 1 to Table 3.9.

Table 3.11

Students in Universities[1], by Level of Degree and Sex 1969/70 - 1992/93

Year and sex	Total	Level of degree			
		Bachelor's degree	Master's degree	Doctorate	Diploma
1969/70 - total	33,383	26,557	4,777	1,267	782
Males	18,927	14,113	3,528	1,022	264
Females	14,456	12,444	1,249	245	518
1974/75 - total	49,849	36,051	9,867	2,719	1,212
Males	28,508	19,883	6,390	2,015	220
Females	21,341	16,168	3,477	704	992
1979/80 - total	54,480	40,250	10,050	2,930	1,250
Males	29,318	21,088	5,887	1,988	355
Females	25,162	19,162	4,163	942	895
1984/85 - total	61,155	44,355	12,765	3,215	820
Men	31,879	22,950	6,793	1,940	196
Women	29,276	21,405	5,972	1,275	624
1985/86 - total	62,360	44,945	13,165	3,375	875
Men	31,407	22,181	6,967	2,033	226
Women	30,953	22,764	6,198	1,342	649
1986/87 - total	63,500	45,480	13,660	3,410	950
Men	32,402	22,924	7,159	2,016	303
Women	31,098	22,556	6,501	1,394	647
1989/90 - total	67,770	46,960	16,100	3,910	800
Men	33,358	22,891	7,995	2,297	175
Women	34,412	24,069	8,105	1,613	625
1990/91 - total	71,190	48,750	17,140	4,360	940
Men	34,599	23,428	8,473	2,510	152
Women	36,591	25,322	8,667	1,850	788
1991/92 - total	78,630	53,950	18,860	4,680	1,150
Men	37,473	25,318	9,044	2,675	336
Women	41,267	28,632	9,816	2,005	814
1992/93 - total	84,090	58,630	20,330	4,930	1,101
Men	39,453	26,963	9,438	2,771	282
Women	45,537	31,667	10,892	2,159	818

1. Including students in academic tracks of regional colleges appearing in the Students File of the universities. See footnote 2 to Table 3.1.

Table 3.12

Students in Universities by Level of Degree, Age, Median Age, Sex and Field of Study 1984/85, 1989/90

Age, median age, sex and field of study	Level of degree									
	Freshman Year		Bachelor's degree		Master's degree		Doctorate		Diploma	
	1984/85	1989/90	1984/85	1989/90	1984/85	1989/90	1984/85	1989/90	1984/85	1989/90
Age										
Total in percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Up to 19	14.7	15.5	6.4	7.3	–	–	–	–	–	–
20-21	29.1	29.5	16.6	17.6	0.7	1.0	–	–	1.6	0.9
22-24	32.8	35.5	37.2	39.8	11.7	12.6	1.1	0.9	23.6	26.2
25-29	12.3	11.2	24.7	24.5	42.0	44.1	20.5	24.7	35.9	32.9
30-34	5.6	3.6	7.2	5.1	21.8	19.4	32.6	35.1	17.0	15.8
35-44	4.5	4.0	5.9	4.7	16.7	18.3	31.8	29.0	18.8	19.3
45-54	0.8	0.7	1.7	0.8	5.8	3.9	10.6	8.4	3.1	4.3
55+	0.2	–	0.3	0.2	1.3	0.7	3.4	1.9	–	0.6
Median age	22.6	22.4	24.2	23.9	29.5	29.1	34.4	33.5	28.5	28.5
Median age by sex										
Men	23.5	23.5	24.8	24.7	29.4	29.2	34.2	33.2	31.4	29.9
Women	21.6	21.6	23.5	23.3	29.6	29.0	34.6	34.0	27.8	27.9
Median age by field of study										
Humanities	22.8	22.6	24.6	24.1	34.6	33.2	37.2	39.9	..	..
Social sciences	23.1	22.8	24.5	24.0	29.6	29.5	36.4	37.3	..	..
Law	22.1	22.1	24.4	24.2	28.2	28.6	..	..	..	..
Medicine and para-medicine	21.8	21.9	23.3	23.4	27.7	27.4	33.5	33.4	..	..
Mathematics and natural sciences	21.7	21.5	23.1	23.0	26.9	27.2	32.1	31.4	..	..
Agriculture	23.9	23.3	24.4	24.4	28.6	29.2	33.4	34.1	..	..
Engineering	22.6	22.3	24.3	24.0	30.2	29.3	32.1	33.0	..	..

Table 3.13

Enrollees in Academic Courses of the Open University of Israel by Year of Study 1980/81 - 1992/93

	Year of study				
		First Year			
	Grand total	Total	Thereof: New entrants	Second year	Third year
1980/81	13,797	12,925	9,675	752	120
1981/82	13,595	12,528	8,772	806	261
1982/83	13,836	12,548	8,653	934	354
1983/84	13,618	12,311	7,764	1,067	240
1984/85	12,034	10,510	6,648	1,235	289
1985/86	11,914	9,829	6,599	1,625	460
1986/87	13,504	11,330	7,596	1,629	545
1987/88	10,853	8,650	5,376	1,627	576
1988/89	11,872	9,516	6,190	1,716	640
1989/90	13,007	10,565	6,659	1,800	642
1990/91	15,761	12,464	7,991	2,049	1,248
1991/92	17,929	13,759	8,193	2,739	1,431
1992/93	19,039	14,014	8,082	3,305	1,720

Table 3.14

Students in Academic Courses of the Open University by Various Characteristics 1985/86 - 1992/93

	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Grand total	11,914	13,506	10,853	11,872	13,007	15,761	17,929	19,039
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sex								
Men	46.4	50.0	49.2	49.0	48.0	47.2	45.4	45.3
Women	53.6	50.0	50.8	51.0	52.0	52.8	54.6	54.7
Field of study								
Humanities & social sciences	68.3	59.0	69.2	72.1	74.2	78.3	78.3	80.4
Mathematics & natural sciences	31.7	41.0	30.8	27.9	25.8	21.7	21.7	19.6
Age								
Up to 19	2.7	3.4	2.7	2.7	3.0	2.6	2.7	3.0
20-21	13.5	10.1	9.5	9.5	9.4	10.0	10.1	8.2
22-24	10.8	9.5	9.2	9.2	10.4	12.1	14.8	16.9
25-29	14.5	14.5	14.1	14.1	14.4	16.3	18.1	20.8
30-34	16.8	17.1	16.6	16.0	16.1	14.7	14.3	13.3
35+	41.7	45.4	47.9	48.5	46.7	44.3	40.0	37.7
District & sub-district of residence								
Jerusalem District	..	..	..	10.3	10.6	9.8	9.6	9.6
Northern District - total	..	..	..	10.2	9.7	9.3	8.9	8.6
Zefat S.d.	..	..	..	1.5	1.4	1.2	1.4	1.0
Golan S.d.	..	..	..	0.6	0.5	0.3	0.3	0.3
Kinneret S.d.	..	..	..	1.0	0.9	0.8	0.8	0.9
Yizre'el S.d.	..	..	..	3.0	2.7	2.8	2.7	2.6
Akko S.d.	..	..	..	4.2	4.3	4.1	4.1	3.8
Haifa District - total	..	..	..	10.4	9.4	10.8	10.7	10.1
Haifa S.d.	..	..	..	8.3	7.2	8.4	8.2	7.6
Hadera S.d.	..	..	..	2.1	2.2	2.5	2.2	2.5
Central District - total	..	..	..	26.8	28.7	28.4	27.7	28.1
Sharon S.d.	..	..	..	11.5	12.3	12.9	12.5	12.0
Petah Tiqwa S.d.	..	..	..	4.3	4.7	4.5	4.3	4.5
Rehovot S.d.	..	..	..	9.7	10.2	9.5	9.4	9.6
Ramla S.d.	..	..	..	1.3	1.5	1.5	1.6	2.0
Tel Aviv District	..	..	..	24.5	24.7	25.3	25.6	26.6
Southern District - total	..	..	..	13.5	12.1	11.7	12.3	11.7
Ashqelon S.d.	..	..	..	3.4	3.6	4.0	4.3	4.6
Be'er Sheva S.d.	..	..	..	10.1	8.5	7.7	8.0	7.1
Judea, Samaria & Gaza Area	..	..	..	1.9	2.1	2.0	1.5	1.6
Other & not known	..	..	..	2.4	2.5	3.1	3.6	3.7

Source: The Open University of Israel and the Central Bureau of Statistics.

Table 3.15

Students in Teacher Training Seminars and Other Institutions of Higher Education by Field of Study 1980/81 - 1992/93

	Field of study					
	Total	Applied sciences & engineering[1]	Economics & business administration	Arts and design[1]	Education[2]	Law
1980/81	2,033	405	100	816	712	–
1984/85	2,881	604	219	1,025	1,033	–
1985/86	5,876	702	216	991	3,967	–
1986/87	5,937	691	216	972	4,058	–
1987/88§	7,791	702	928	1,018	5,143	–
1988/89§	8,096	518	1,617	1,194	4,767	–
1989/90	8,286	475	1,877	1,188	4,746	–
1990/91	9,559	486	2,142	1,230	5,701	–
1991/92	12,311	530	2,790	1,306	7,685	–
1992/93	13,988	470	3,288	1,467	8,043	720

1. Up till 1987/88 students of textile design and fashion were included in "applied sciences and engineering". From 1987/88 onwards the above students were included in "arts and design".
2. Beginning in 1985/86 all academic track students in all years of study were included. Prior to 1985/86 the figures include all students in the general and secondary education track and students in the fourth years of their studies only in the other academic tracks.

Table 3.16

Women Students in Teacher Training Seminars and Other Institutions of Higher Education by Field of Study 1980/81 - 1992/93

		Field of study				
	Total	Applied sciences & engineering[1]	Economics & business administration	Arts and design[1]	Education[2]	Law
1980/81	1,359	132	7	543	677	–
1984/85	1,825	210	18	639	958	–
1985/86	4,346	228	21	626	3,471	–
1986/87	4,461	232	20	622	3,587	–
1987/88§	5,598	227	172	607	4,592	–
1988/89§	5,404	86	379	749	4,190	–
1989/90	5,544	80	497	744	4,223	–
1990/91	6,341	84	719	781	4,757	–
1991/92	8,291	84	811	827	6,569	–
1992/93	9,128	99	968	910	6,810	341

1. Up till 1987/88 students of textile design and fashion were included in "applied sciences and engineering". From 1987/88 onwards the above students were included in "arts and design".
2. Beginning in 1985/86 all academic track students in all years of study were included. Prior to 1985/86 the figures include all students in the general and secondary education track and students in the fourth years of their studies only in the other academic tracks.

Table 3.17

Freshman Students in Teacher Training Seminars and Other Institutions of Higher Education by Field of Study 1985/86 - 1992/93

	Field of study					
	Total	Applied sciences & engineering[1]	Economics & business administration	Arts and design[1]	Education[2]	Law
1885/86	1,791	238	67	308	1,178	–
1986/87	1,780	193	65	318	1,204	–
1987/88	2,241	181	409	283	1,368	–
1988/89	2,679	127	931	382	1,239	–
1989/90	2,609	113	742	359	1,395	–
1990/91	2,968	146	641	406	1,775	–
1991/92	3,850	189	935	409	2,317	–
1992/93	4,121	199	1,156	434	2,070	262

1. Up till 1987/88 students of textile design and fashion were included in "applied sciences and engineering". From 1987/88 onwards the above students were included in "arts and design".

Table 3.18

Students in Other Institutions of Higher Education[1] by Institution 1980/81 - 1992/93

Year & year of study	Institution				
	Bezalel Academy of Arts and Design	Rubin Academy of Music, Jerusalem	Jerusalem College of Technology	Shenkar - College of Textile Technology and Fashion	Ruppin Institute of Agriculture[2]
1980/81 - total	546	270	151	254	100
Thereof: First Year	162	101	43	89	64
1981/82 - total	497	269	158	249	122
Thereof: First Year	151	84	51	91	80
1982/83 - total	584	368	168	271	127
Thereof: First Year	176	147	57	102	85
1983/84 - total	616	305	215	308	177
Thereof: First Year	174	91	78	86	113
1984/85 - total	633	392	280	324	219
Thereof: First Year	206	127	98	93	82
1985/86 - total	628	363	360	342	216
Thereof: First Year	178	130	141	97	67
1986/87 - total	601	371	360	331	216
Thereof: First Year	193	125	92	101	65
1987/88 - total	628	390	343	359	225
Thereof: First Year	180	103	73	108	89
1988/89 - total	654	388	311	359	203
Thereof: First Year	198	138	72	101	71
1989/90 - total	640	386	287	350	213
Thereof: First Year	174	140	75	83	67
1990/91 - total	644	422	305	344	189
Thereof: First Year	200	161	101	90	77
1991/92 - total	663	480	360	333	213
Thereof: First Year	204	159	133	102	83
1992/93 - total	814	470	385	367	234
Thereof: First Year	232	149	129	123	81

1. Does not include the Tel-Aviv College of Management.
2. Includes only students in the course in Kibbutz Administration and Economy.

Table 3.19

Graduate and Posdoctotal Fellowships by Level of Degree and Institution in Full-time Equivalent Fellowships 1986/87 – 1992/93

Level of degree & institution	1986/87	1990/91	1991/92	1992/93
Master's degree				
Total	1,582.0	..	2,863.0	3,118.5
Hebrew University	556.7	1,158.0	1,193.0	1,306.0
Technion	537.2	598.0	620.0	574.1
Tel-Aviv University	118.6	212.0	268.0	261.0
Bar-Ilan University	95.3	117.0	129.0	131.0
Haifa University	–	–	–	–
Ben-Gurion University of the Negev	134.2	..	447.0	631.4
Weizmann Institute of Science	140.0	..	206.0	215.0
Doctorate				
Total	1,060.0	..	2,428.6	2,737.3
Hebrew University	289.9	867.0	1,008.0	1,150.0
Technion	115.9	340.0	378.0	413.3
Tel-Aviv University	256.5	351.0	382.0	406.0
Bar-Ilan University	36.0	110.0	116.0	134.6
Haifa University	12.3	23.0	30.6	37.7
Ben-Gurion University of the Negev	48.8	..	93.0	169.6
Weizmann Institute of Science	300.6	..	421.0	426.1
Post-Doctorate				
Total	147.9	356.0	493.9	520.8
Hebrew University	83.7	156.0	210.0	218.0
Technion	28.3	41.0	62.0	74.8
Tel-Aviv University	–	37.0	50.9	45.0
Bar-Ilan University	–	13.0	33.0	42.0
Haifa University	–	8.0	10.0	8.5
Ben-Gurion University of the Negev	8.2	14.0	28.0	29.2
Weizmann Institute of Science	27.7	87.0	100.0	103.3

Source: The Planning and Budgeting Committee

Table 3.20

Post-doctoral Fellowships in Universities by Field of Study & Institution in Full-time Equivalent Fellowships & Percentages 1990/91

Institution	Field of study						
	Total	Humanities	Social sciences	Mathematics & computer sciences	Physical sciences	Life sciences[1]	Engineering
	Absolute numbers						
Total	351	29	23	32	100	148	19
Hebrew University	154	24	16	7	42	66	–
Technion	41	–	–	3	10	12	16
Tel-Aviv University	28	2	1	5	6	13	1
Bar-Ilan University	21	–	–	5	7	10	–
Haifa University	7	1	5	1	–	–	–
Ben-Gurion University of the Negev	14	–	1	6	4	1	1
Weizmann Institute of Science	87	2	–	6	32	47	–
	Percentages						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hebrew University	43.8	81.4	69.5	20.1	41.7	44.7	–
Technion	11.6	–	–	9.3	10.3	7.8	86.5
Tel-Aviv University	7.9	6.9	4.4	16.0	5.6	8.5	7.0
Bar-Ilan University	6.0	–	–	15.4	6.5	6.4	–
Haifa University	2.0	4.8	21.2	2.5	–	–	–
Ben-Gurion University of the Negev	3.9	–	4.9	18.2	4.0	0.9	6.5
Weizmann Institute of Science	24.8	6.9	–	18.5	32.0	31.7	–
Total	100.0	8.3	6.4	9.2	28.5	42.3	5.3
Hebrew University	100.0	15.4	10.2	4.2	27.1	43.1	–
Technion	100.0	–	–	7.3	25.2	28.4	39.1
Tel-Aviv University	100.0	7.2	3.6	18.8	20.2	45.5	4.7
Bar-Ilan University	100.0	–	–	23.8	31.0	45.2	–
Haifa University	100.0	20.0	68.6	11.4	–	–	–
Ben-Gurion University of the Negev	100.0	–	8.1	43.4	29.4	10.3	8.8
Weizmann Institute of Science	100.0	2.3	–	6.9	36.8	54.0	–

Source: The Planning and Budgeting Committee.

1. Includes medicine, the biological sciences and agriculture.

Chapter 4
The Progression of Studies at Universities

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Table 4.1

Percentage of Matriculants that Began Studies in a University, by the Number of Years after High School Graduation, Year of Graduation, Sex and Population Group (Aggregate percentages)

Graduating class, sex & population group	Years after high school graduation							
	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year	Eighth year
Total								
1983/84	5.3	8.2	14.3	24.4	32.9	38.7	42.3	44.4
1984/85	4.5	7.8	13.0	23.5	32.5	38.9	42.6	..
1985/86	4.1	6.9	11.9	22.4	31.8	38.6	..	..
Sex								
Men								
1983/84	7.3	9.3	10.6	16.6	26.6	36.2	42.3	45.6
1984/85	6.7	8.8	10.0	15.7	25.5	35.3	41.4	..
1985/86	6.1	7.3	8.4	12.9	23.5	33.4	..	..
Women								
1983/84	3.9	7.5	17.8	31.8	39.4	42.4	44.0	44.9
1984/85	2.8	7.2	15.8	30.5	39.2	43.0	44.9	..
1985/86	2.5	6.4	14.7	30.4	39.1	43.4	..	..
Population group								
Jews								
1983/84	4.2	6.3	13.1	24.8	34.5	41.1	45.2	47.5
1984/85	4.0	6.3	11.9	23.8	34.2	41.5	45.7	..
1985/86	3.6	5.6	10.9	22.8	33.5	41.0	..	..
Non-Jews								
1983/84	14.2	22.6	25.4	26.6	27.3	27.9	28.0	28.3
1984/85	8.9	20.1	23.3	24.7	25.4	26.0	26.3	..
1985/86	8.3	16.0	19.2	20.1	20.8	21.3	..	..

Table 4.2

Percentage of Matriculants that Began Studies in a University within Six Years of Graduation by Year of Graduation and Educational Track, and by Sex, Population Group and Continent of Origin

Sex, population group and continent of origin	Year of graduation & educational track								
	Total			General track			Vocational track		
	1983/84	1984/85	1985/86	1983/84	1984/85	1985/86	1983/84	1984/85	1985/86
Total	38.8	39.0	38.6	43.3	43.8	43.2	19.4	18.2	18.9
Sex									
Men	36.2	35.5	33.4	41.5	41.0	38.2	22.2	20.3	20.7
Women	42.4	43.1	43.4	46.1	46.9	47.3	15.8	15.8	16.1
Population group									
Jews	41.2	41.6	41.0	46.8	47.8	47.0	20.1	19.1	19.4
Non-Jews	28.0	26.1	21.3	28.7	27.2	21.9	6.0	4.4	7.0
Continent of origin - Jews									
Israel	46.0	45.5	46.2	50.2	50.0	50.5	24.6	20.7	24.4
Asia - Africa	30.9	31.4	30.6	36.4	37.8	37.2	12.7	13.5	13.5
Europe - America	48.4	49.6	47.4	54.1	54.9	52.8	24.1	26.7	24.6

Table 4.3

Percentage of Freshman University Students[1] that Received a Bachelor's Degree, by Year of Study and Freshman Class (Aggregate percentages)

Freshman class	Year of study							
	Freshman year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year	Eighth year
1980/81	..	..	4.8	22.9	45.9	56.3	60.9	63.3
1981/82	..	..	3.7	23.1	46.8	56.5	62.2	63.6
1982/83	..	..	4.2	24.5	48.1	58.3	63.1	65.5
1983/84	..	..	6.3	26.6	50.8	61.0	65.4	67.3
1984/85	..	..	6.5	28.1	55.3	65.0	69.2	71.4
1985/86	..	..	5.3	28.5	56.0	66.5	70.8	..
1986/87	..	..	7.9	32.0	58.2	67.7	..	..
1987/88	..	..	8.2	31.5	58.6	..	..	..
1988/89	..	..	6.2	32.3	..	..	..	..
1989/90	..	..	6.7	..	..	..	..	..

1. Does not include medical students.

Table 4.4

Percentage of Freshman University Students[1] that Received a Bachelor's Degree within Five Years of Commencement of Study, Freshman Class and Various Characteristics[2]

	Freshman class of:				
	1980/81	1982/83	1984/85	1985/86	1986/87
Total[3]	56.3	58.0	65.0	66.5	67.7
Initial field of study					
Humanities	44.0	45.5	52.0	53.5	53.0
Social sciences	58.0	60.9	65.5	67.9	70.7
Law	73.5	65.9	67.8	79.5	80.2
Para-medical studies	68.6	74.7	78.7	80.7	82.9
Mathematics & natural sciences	58.2	60.8	68.4	66.8	71.5
Agriculture	75.6	74.0	80.5	80.1	76.4
Engineering and architecture	73.0	74.1	80.0	81.5	81.6
Initial institution					
Hebrew University	54.5	62.1	70.1	66.8	70.4
Technion	74.5	76.2	77.2	76.0	77.2
Tel-Aviv University	55.6	57.0	60.8	65.0	67.7
Bar-Ilan University	47.0	46.2	58.2	58.2	57.1
Haifa University	51.5	55.1	55.9	62.5	68.8
Ben-Gurion University of the Negev	60.5	55.6	68.1	71.3	70.0
Sex					
Men	56.9	58.4	64.1	..	..
Women	55.6	57.6	65.0	..	..
Population group and continent of origin					
Jews - total	60.2	60.2	67.7	..	..
Born in Israel, total	61.8	61.8	68.8	..	..
Father born in: Israel					
Israel	64.7	65.2	72.7	..	..
Asia -Africa	58.6	57.6	64.3	..	..
Europe-America	62.2	62.5	69.3	..	..
Born in Asia-Africa	57.2	47.8	58.3	..	..
Born in Europe-America	55.5	57.0	64.3	..	..
Non-Jews - total	50.5	48.8	48.5	..	..
Age at beginning of studies					
Up to 19	59.5	62.0	66.3	..	..
20-21	66.4	66.5	72.8	..	..
22-24	63.2	62.3	67.4	..	..
25-29	50.2	49.7	58.7	..	..
30-34	44.2	42.5	51.9	..	..
35+	44.3	45.7	52.1	..	..

1. Does not include medical students.
2. See the Technical Appendix for explanations of this table.
3. Total includes cases for which initial field of study, sex, population group, continent of origin or age are not known.

Table 4.5

Percentage of Freshman University Students who Interrupted their Undergraduate Studies[1], by Year of Study and Freshman Class

Freshman class	Year of study						
	Freshman year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year
1980/81	–	21.0	26.4	32.8	35.2	34.2	33.6
1981/82	–	20.0	25.0	31.7	34.3	33.7	33.4
1982/83	–	19.9	25.1	31.4	33.5	33.0	32.1
1983/84	–	19.9	24.7	30.5	32.2	31.1	29.7
1984/85	–	16.5	20.9	27.2	27.9	26.9	26.2
1985/86	–	15.3	19.6	26.0	26.7	26.0	24.9
1986/87	–	15.5	19.5	24.9	26.0	24.7	..
1987/88	–	15.2	18.5	25.0	25.5	..	..
1988/89	–	13.3	17.4	22.8	..	..	..
1989/90	–	13.5	16.3	..	..	..	..
1990/91	–	11.2	..	..	..	..	..

1. Does not include medical students.
2. Students who were not enrolled in a university in the stated year and had not received a degree by the stated year. Some of these students resume their studies at a later date.

Table 4.6

Percentage of Freshman University Students[1] that Interrupted Undergraduate Studies in the Year Following their Freshman Year[2], by Initial Field of Study and Institution, and Freshman Class

Freshman class	Total	Humanities	Social sciences	Law	Para-medicine	Mathematics & natural sciences	Agriculture
	Initial field of study						
1980/81	21.0	26.0	21.5	9.8	12.1	21.9	11.9
1981/82	20.0	24.9	19.0	14.2	13.6	22.4	9.6
1982/83	19.8	26.0	18.1	10.9	9.2	20.1	13.8
1983/84	20.0	26.2	20.0	9.8	17.1	19.3	16.4
1984/85	16.5	23.2	16.5	12.1	10.5	15.9	12.3
1985/86	15.2	21.3	14.4	6.8	8.8	17.0	11.5
1986/87	15.4	24.3	12.8	9.6	9.5	13.8	11.0
1987/88	15.1	22.3	13.8	5.9	10.0	13.9	17.0
1988/89	13.3	19.9	12.0	7.2	7.0	14.2	11.1
1989/90	13.5	19.2	11.4	6.1	8.0	15.5	13.1
1990/91	11.2	16.5	9.0	1.0	10.0	13.0	11.3

	Total	Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev
	Initial institution						
1980/81	21.0	23.6	4.9	23.6	19.4	27.1	18.4
1981/82	20.0	18.6	6.3	22.4	24.4	25.0	19.7
1982/83	19.8	17.3	5.1	22.5	22.9	27.7	25.5
1983/84	20.0	23.1	7.0	20.9	21.0	23.0	16.6
1984/85	16.5	15.2	6.8	20.2	16.2	19.0	16.4
1985/86	15.2	16.1	6.5	17.1	14.9	18.3	15.7
1986/87	15.4	14.2	7.3	17.3	19.4	18.3	12.0
1987/88	15.1	13.5	4.0	17.7	17.7	14.3	18.8
1988/89	13.3	14.1	6.7	15.7	17.2	13.7	7.1
1989/90	13.5	11.4	7.2	16.2	15.8	12.8	16.6
1990/91	11.2	11.0	5.2	14.1	12.6	9.9	11.8

1. Does not include medical students.
2. Students who were not enrolled in a university in the stated year and had not received a degree by the stated year. Some of these students resume their studies at a later date.

Table 4.7

Percentage of a Freshman University Students[1] that Interrupted their Studies within Two years of their Onset, by Freshman Class, Sex, Origin and Age at Onset of Studies[2]

	Freshman class		
	1980/81	**1982/83**	**1984/85**
Total[3]	21.3	20.8	17.2
Sex			
Men	20.6	22.3	18.4
Women	21.9	19.2	16.0
Population group and continent of origin			
Jews - total	18.0	19.2	15.2
Born in Israel, total	16.5	17.7	14.6
Father born in: Israel			
Israel	13.5	14.7	11.8
Asia -Africa	18.5	20.0	16.2
Europe-America	16.7	17.8	15.3
Born in Asia-Africa	24.4	29.2	25.4
Born in Europe-America	21.5	23.1	18.6
Non-Jews - total	17.4	20.6	23.3
Age at onset of studies			
Up to 19	14.1	14.2	12.6
20-21	11.8	11.5	10.2
22-24	15.1	17.7	14.6
25-29	27.0	30.7	23.6
30-34	32.8	25.5	30.3
35+	34.2	32.6	29.7

1. Does not include medical students.
2. The figures in this table are not directly comparable to the figures in table 4.5. The figures here refer to students that left their studies within the initial two years and did not resume study in a university within five years of the initiation of their studies, whereas the figures in table 4.5 refer to students that interrupted their studies in a given year irrespective of whether they resumed their studies thereafter.
3. Total includes cases for which initial field of study, sex, population group, continent of origin or age are not known.

Table 4.8

Percentage of Bachelor's Degree Recipients[1] from Universities that Began Studies for a Master's Degree, by Number of Years after Graduation and Graduating Class (Aggregate percentages)

	Year after graduation							
Graduating class	Same year	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year
1980/81	17.8	24.2	27.2	29.3	30.9	32.1	33.3	33.9
1981/82	17.1	23.6	27.6	29.4	30.7	32.0	33.2	33.9
1982/83	15.6	24.7	27.9	29.9	31.5	32.8	33.6	34.6
1983/84	17.6	24.1	27.3	29.5	31.1	32.5	33.8	34.9
1984/85	18.3	24.8	28.2	30.5	31.8	33.0	34.2	..
1985/86	17.2	24.4	27.8	30.0	31.6	32.8	..	..
1986/87	18.1	24.8	27.9	30.4	32.0	..	..	..
1987/88	17.4	24.7	28.2	30.6	..	..	..	..
1988/89	18.2	25.4	29.8	..	..	..	..	..
1989/90	18.3	26.7	..	..	..	..	..	..

1. Does not include Bachelor's degree recipients in medicine.

Table 4.9

Percentage of Bachelor's Degree Recipients[1] from Universities who Commenced Graduate Studies within Three Years of Receipt of the Degree, by Field of Study of Bachelor's Degree and Graduating Class

	Field of study of Bachelor's degree							
Graduating class	Total	Humanities	Social sciences	Law	Para-medicine	Mathematics & natural sciences	Agriculture	Engineering & architecture
1980/81	29.3	25.9	30.2	17.6	13.3	49.7	38.4	22.7
1981/82	29.4	26.0	29.6	19.0	23.0	47.1	40.3	22.7
1982/83	29.9	24.8	27.6	14.2	20.8	48.8	41.4	23.7
1983/84	29.6	23.9	28.5	15.5	19.0	46.7	41.3	25.2
1984/85	30.5	25.3	33.0	15.8	21.4	49.4	39.4	24.4
1985/86	30.0	25.8	32.3	14.3	16.9	46.8	40.1	22.0
1986/87	30.4	26.1	31.3	13.3	13.5	51.6	45.5	27.5
1987/88	30.6	25.0	32.2	11.3	14.6	53.5	49.1	26.0

1. Does not include Bachelor's degree recipients in medicine.

Table 4.10

Percentage of Master's Degree Students[1] that Received a Master's Degree, by Year of Study and Year of Onset of Graduate Study (Aggregate percentages)

Year of onset of graduate study	Year of study						
	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year
1984/85	..	2.3	12.9	26.3	36.2	44.8	49.9
1985/86	..	1.9	12.1	25.6	36.5	44.4	50.0
1986/87	..	2.1	11.7	25.2	36.4	44.4	..
1987/88	..	2.3	13.0	25.5	38.0	..	..
1988/89	..	1.4	11.6	26.9	..	..	..
1989/90	..	2.6	12.5	..	..	..	..
1990/91	..	2.3	..	..	..	..	..

1. Does not include medical students.

Table 4.11

Percentage of Master's Degree Students[1] that Received a Master's Degree within Four Years of Onset of Study, by Year of Onset of Graduate Study, Initial Field of Study and Institution

Initial field of study and institution	Year of onset of graduate study			
	1984/85	1985/86	1986/87	1987/88
Total	36.2	36.5	36.4	38.0
Initial field of study				
Humanities	22.4	21.6	20.4	22.7
Social sciences	35.4	35.1	35.5	37.9
Law	10.0	6.1	9.0	10.4
Para-medical studies	30.5	20.7	20.2	21.4
Mathematics & natural sciences	58.4	59.6	57.3	58.3
Agriculture	50.0	48.3	47.8	58.7
Engineering and architecture	39.1	42.9	48.0	43.6
Initial institution				
Hebrew University	36.7	36.0	35.5	41.3
Technion	42.0	47.6	54.8	52.9
Tel-Aviv University	33.5	33.2	32.0	33.8
Bar-Ilan University	29.1	30.4	29.4	30.2
Haifa University	33.5	32.1	27.8	29.8
Ben-Gurion University of the Negev	33.8	41.3	39.3	34.1
Weizmann Institute of Science	84.2	73.1	80.8	87.0

1. Does not include medical students.

Table 4.12

Percentage of Master's Degree Students[1] that Interrupted their Master's Studies, by Year of Onset of Graduate Study and Year of Study

Year of onset of graduate study	Year of study						
	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year
1984/85	–	25.9	34.0	39.9	42.1	42.2	41.7
1985/86	–	24.0	33.9	38.7	40.7	42.1	41.2
1986/87	–	24.8	34.8	39.3	41.4	41.5	..
1987/88	–	22.7	31.0	39.0	39.2	..	..
1988/89	–	21.6	31.7	36.9	..	..	..
1989/90	–	21.7	28.3	..	..	..	..
1990/91	–	18.0	..	..	..	..	..

1. Does not include medical students.

Table 4.13

Percentage of Master's Degree Students[1] that were not Enrolled in a University in the Fourth Year from the Onset of their Studies,by Initial Field of Study and Institution and the Year of Onset of Graduate Study

Year of onset of graduate study	Initial field of study							
	Total	Humanities	Social sciences	Law	Para-medicine	Mathematics & natural sciences	Agriculture	Engineering & architecture
1984/85	39.9	40.6	38.2	72.9	37.9	31.3	34.9	38.3
1985/86	38.7	43.9	37.0	73.5	40.5	27.2	29.9	36.4
1986/87	39.3	46.9	37.8	74.4	50.0	32.2	32.6	34.0
1987/88	39.0	51.4	37.2	65.7	45.6	30.1	25.0	31.8
1988/89	36.9	43.7	35.7	58.1	53.4	31.9	28.6	31.9

	Initial institution							
	Total	Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev	Weizmann Institute of Science
1984/85	39.9	42.2	38.7	36.5	46.2	38.5	46.6	14.5
1985/86	38.7	43.4	32.6	36.0	41.3	41.2	38.9	25.6
1986/87	39.3	43.5	28.2	38.3	43.2	43.9	41.3	16.7
1987/88	39.0	38.2	24.9	37.4	52.5	50.5	40.9	14.3
1988/89	36.9	38.4	27.9	26.3	38.0	44.5	41.4	20.7

1. Does not include medical students.

Table 4.14

Percentage of Master's Degree Recipients[1] that Began Doctoral Studies, by Year After Graduation and Graduating Class (Aggregate percentages)

Graduating class	Year after graduation							
	Same year	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year
1980/81	9.6	17.0	20.6	23.2	24.1	25.0	25.7	26.6
1981/82	9.4	17.7	20.9	22.5	23.7	24.8	25.7	26.4
1982/83	8.2	17.2	20.6	22.2	23.3	24.0	25.1	25.9
1983/84	9.8	18.3	21.3	23.0	23.9	24.7	25.6	26.3
1984/85	10.9	20.1	22.9	25.1	26.0	26.6	27.6	28.7
1985/86	10.6	18.8	21.3	23.3	24.5	25.1	25.9	..
1986/87	11.8	18.9	22.0	23.5	24.9	26.2	..	..
1987/88	12.0	19.3	22.0	24.1	25.0	..	..	..
1988/89	9.9	17.9	20.6	22.4	..	..	..	..
1989/90	10.9	18.7	21.6	..	..	..	..	..
1990/91	9.4	18.8	..	..	..	..	..	..
1991/92	10.2	..	..	..	..	..	..	..

1. Not including graduates that received an M.D.

Table 4.15

Percentage of Master's Degree Recipients[1] that Began Doctoral Studies within Three Years of Receipt of Master's Degree, by Selected Field of Study for Master's Degree[2] and Graduating Class

Graduating Class	Field of study of Master's degree					
	Total	Humanities	Social sciences	Mathematics & natural sciences	Agriculture	Engineering & architecture
1980/81	23.2	24.6	8.2	42.4	40.5	22.3
1981/82	22.5	24.9	6.9	46.2	38.6	17.5
1982/83	22.1	23.9	8.4	46.2	38.5	17.3
1983/84	22.2	20.8	5.8	48.2	24.5	20.9
1984/85	24.7	20.7	9.1	49.2	38.8	22.7
1985/86	22.9	20.3	5.3	48.5	41.4	23.9
1986/87	23.2	18.7	8.0	53.5	28.0	22.6
1987/88	23.8	21.5	7.2	50.8	34.5	21.9
1988/89	22.0	20.7	6.9	48.6	34.6	19.7

1. Not including graduates that received an M.D.
2. The annual number of Master's degrees awarded in law and paramedical studies (for most years) was below 30. These fields were therefore not presented separately in this table.

Table 4.16

Percentage of Doctoral Students[1] that Received a Doctorate, by Year of Study and Year of Onset of Doctoral Study
(Aggregate percentages)

Year of onset of doctoral study	Year of study							
	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year	Eighth year
1984/85	–	1.1	3.0	9.3	17.8	31.7	44.9	52.5
1985/86	–	1.1	3.6	10.4	20.7	32.3	45.1	..
1986/87	–	0.7	2.7	9.0	15.9	32.4	..	..
1987/88	–	0.3	1.7	6.6	17.3	..	..	..
1988/89	–	0.4	2.3	7.8	..	..	..	..
1989/90	–	0.4	2.8	..	..	..	..	..
1990/91	–	0.4	..	..	..	..	..	..

Table 4.17

Percentage of Doctoral Students who Interrupted their Doctoral Studies by Year of Onset of Doctoral Study and Year of Study

Year of onset of doctoral study	Year of study							
	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year	Eighth year
1984/85	–	11.5	20.1	24.2	26.8	32.0	31.7	31.6
1985/86	–	21.2	25.0	26.3	30.5	31.9	34.4	..
1986/87	–	16.5	21.1	27.9	26.9	29.4	..	..
1987/88	–	13.5	22.3	23.3	25.1	..	..	..
1988/89	–	20.0	22.7	27.2	..	..	..	..
1989/90	–	13.9	21.0	..	..	..	..	..
1990/91	–	13.9	..	..	..	..	..	..

Chapter 5

Recipients of Degrees from Institutions of Higher Education

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Table 5.1

Recipients of Degrees in Institutions of Higher Education by Type of Institution and Level of Degree 1979/80 - 1992/93

	Type of institution and level of degree						
		Bachelor's degree recipients					
	Grand total	Total	Universities	Open University of Israel	Teacher training colleges	Other institutions of higher education	Recipients of postgraduate university degrees[1]
1979/80	9,568	6,937	6,740	–	75	122	2,631
1980/81	9,873	7,277	7,000	–	77	200	2,596
1981/82	10,517	7,861	7,412	–	184	265	2,656
1982/83	10,326	7,560	7,124	41	181	214	2,766
1983/84	11,235	8,327	7,746	81	165	335	2,908
1984/85	11,776	8,671	8,113	101	139	318	3,105
1985/86	12,803	9,672	8,919	132	240	381	3,131
1986/87	12,978	9,734	8,845	227	311	351	3,244
1987/88	13,405	10,061	9,213	194	319	335	3,344
1988/89	14,448	11,039	9,805	281	512	441	3,409
1989/90	15,274	11,551	10,192	304	655[2]	400	3,723
1990/91	15,204	11,566	9,995	339	820	412	3,638
1991/92	16,593	12,441	10,506	350	975	610	4,152
1992/93	17,933	13,504	11,144	405	1,111	844	4,429

1. Including recipients of diplomas, second degrees and third degrees.
2. Starting from this year, including recipients of degrees from the Center for Technological Education in Holon.

Table 5.2

Recipients of Degrees in Universities, by Level of Degree 1948/49 - 1992/93

	Level of degree				
	Total	Bachelor's degree	Master's degree	Doctorate	Diploma[1]
1948/49	193	135	48	10	–
1949/50	239	160	70	9	–
1959/60	1,237	779	377	81	–
1969/70	5,566	4,064	807	238	457
1974/75	8,799	6,638	1,233	273	655
1975/76	9,665	6,930	1,602	298	835
1976/77	10,144	6,876	1,880	398	990
1977/78	9,799	6,658	1,682	390	1,069
1978/79	9,556	6,602	1,767	401	786
1979/80	9,371	6,740	1,652	378	601
1980/81	9,596	7,000	1,641	355	600
1981/82	10,068	7,412	1,777	353	526
1982/83	9,890	7,124	1,943	335	488
1983/84	10,654	7,746	1,967	304	637
1984/85	11,218	8,113	2,140	356	609
1985/86	12,050	8,919	2,200	371	560
1986/87	12,089	8,845	2,274	390	580
1987/88	12,557	9,213	2,432	421	491
1988/89	13,214	9,805	2,466	454	489
1989/90	13,915	10,192	2,790	450	483
1990/91	13,633	9,995	2,726	404	508
1991/92	14,658	10,506	3,068	510	574
1992/93	15,573	11,144	3,153	556	720

1. Recipients of diplomas only. Those who received both diplomas and degrees in the same year are classified according to the degree received.

Table 5.3

Recipients of Degrees from Universities by Level of Degree, Sex and Institution 1974/75 - 1992/93

Institution and sex	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Total				
Grand total	8,799	9,371	11,218	12,050	12,089	13,915	13,633	14,658	15,573
thereof: Women	3,780	4,223	5,443	5,883	5,986	7,033	7,020	7,535	8,240
Hebrew University	3,124	2,396	3,136	2,951	3,216	3,593	3,358	3,684	3,827
Technion	1,372	1,347	1,404	1,478	1,429	1,816	1,704	1,786	1,892
Tel-Aviv University	1,995	2,452	3,272	3,369	3,411	4,035	3,906	4,088	4,346
Bar-Ilan University	813	1,265	1,308	1,700	1,637	1,621	1,792	1,992	2,140
Haifa University	842	1,015	1,173	1,295	1,275	1,400	1,517	1,638	1,731
Ben-Gurion University of the Negev	537	775	812	1,163	1,002	1,308	1,233	1,317	1,479
Weizmann Institute of Science	116	121	113	94	119	142	123	153	158
					Bachelor's degree				
Total	6,638	6,740	8,113	8,919	8,845	10,192	9,995	10,506	11,144
thereof: Women	2,823	3,035	3,977	4,377	4,423	5,269	5,206	5,475	5,961
Hebrew University	1,999	1,430	2,049	1,968	2,122	2,412	2,325	2,495	2,615
Technion	1,140	1,045	984	1,111	1,046	1,313	1,249	1,291	1,335
Tel-Aviv University	1,632	1,734	2,478	2,461	2,534	2,940	2,759	2,792	3,123
Bar-Ilan University	649	1,045	1,009	1,347	1,280	1,266	1,385	1,554	1,599
Haifa University	723	863	959	1,065	1,026	1,160	1,225	1,302	1,334
Ben-Gurion University of the Negev	495	623	634	967	837	1,101	1,052	1,072	1,138
Weizmann Institute of Science	–	–	–	–	–	–	–	–	–
					Master's degree				
Total	1,233	1,652	2,140	2,200	2,274	2,790	2,726	3,068	3,153
thereof: Women	413	625	874	910	972	1,236	1,264	1,418	1,526
Hebrew University	681	594	761	663	765	909	764	878	900
Technion	165	226	332	302	291	403	358	387	413
Tel-Aviv University	220	527	603	701	683	877	932	1,008	953
Bar-Ilan University	100	121	161	205	25	236	284	309	331
Haifa University	14	68	109	134	127	133	179	225	235
Ben-Gurion University of the Negev	8	59	116	141	111	165	142	185	248
Weizmann Institute of Science	45	57	58	54	72	67	67	76	73

Table 5.3

Recipients of Degrees from Universities by Level of Degree, Sex and Institution 1974/75 - 1992/93 (cont.)

Institution and sex	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Doctorate				
Total	273	378	356	371	390	450	404	510	556
thereof: Women	47	103	116	135	122	157	152	176	211
Hebrew University	145	130	118	145	151	133	115	177	158
Technion	24	53	65	55	68	86	75	80	111
Tel-Aviv University	24	83	76	95	82	100	93	105	127
Bar-Ilan University	9	34	20	27	22	31	39	34	44
Haifa University	–	–	2	2	3	2	5	8	12
Ben-Gurion University of the Negev	–	14	20	7	17	23	21	29	19
Weizmann Institute of Science	71	64	55	40	47	75	56	77	85
					Diploma				
Total	655	601	609	560	580	483	508	574	720
thereof: Women	497	506	476	461	469	371	398	466	542
Hebrew University	299	242	208	175	178	139	154	134	154
Technion	43	23	23	10	24	14	22	28	33
Tel-Aviv University	119	108	115	112	112	118	122	183	143
Bar-Ilan University	55	65	118	121	110	88	84	95	166
Haifa University	9	84	103	94	119	105	108	103	150
Ben-Gurion University of the Negev	34	79	42	48	37	19	18	31	74
Weizmann Institute of Science	–	–	–	–	–	–	–	–	–

Table 5.4

Recipients of Degrees in Universities, by Institution and Level of Degree 1992/93

Level of degree	Total	Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev	Weizmann Institute of Science
				Institution				
				Absolute numbers				
Total	15,573	3,827	1,892	4,346	2,140	1,731	1,479	158
Bachelor's degree	11,144	2,615	1,335	3,123	1,599	1,334	1,138	–
Master's degree	3,153	900	413	953	331	235	248	73
Doctorate	556	158	111	127	44	12	19	85
Diploma[1]	720	154	33	143	166	150	74	–
				Percentages				
Total	100.0	24.6	12.1	27.9	13.7	11.1	9.5	1.0
Bachelor's degree	100.0	23.5	12.0	28.0	14.3	12.0	10.2	–
Master's degree	100.0	28.5	13.1	30.2	10.5	7.5	7.9	2.3
Doctorate	100.0	28.4	20.0	22.8	7.9	2.2	3.4	15.3
Diploma[1]	100.0	21.4	4.6	19.9	23.1	20.8	10.3	–
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Bachelor's degree	71.6	68.3	70.6	71.9	74.7	77.1	76.9	–
Master's degree	20.2	23.5	21.8	21.9	15.5	13.6	16.8	46.2
Doctorate	3.6	4.1	5.9	2.9	2.1	0.7	1.3	53.8
Diploma[1]	4.6	4.0	1.7	3.3	7.8	8.7	5.0	–

1. In addition, 450 students received a teaching diploma together with a degree and were counted here as the recipients of a degree.

Table 5.5

Recipients of Degrees from Universities by Level of Degree and Field of Study 1974/75 - 1992/93

Field of study	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
				Total					
Grand total	8,799	9,371	11,218	12,050	12,089	13,915	13,633	14,658	15,573
Humanities - total	2,925	2,741	3,312	3,334	3,488	3,532	3,488	3,691	3,915
General humanities	944	844	1,073	1,184	1,298	1,228	1,145	1,156	1,223
Languages, literature and regional studies	903	743	789	782	825	866	873	926	937
Education and teacher training	830	912	1,126	1,050	1,083	997	1,039	1,194	1,336
Arts, crafts and applied arts	181	179	243	227	208	328	308	288	302
Special courses and miscellaneous	67	63	81	91	74	113	123	127	117
Social sciences - total	2,079	2,808	2,879	3,474	3,316	4,110	4,156	4,846	4,946
Social sciences	1,936	2,410	2,434	2,919	2,632	3,223	3,400	3,999	4,187
Business and management	143	398	445	555	684	887	756	847	759
Law	419	301	505	390	437	464	513	434	506
Medicine - total	297	459	822	954	1,009	1,208	1,190	1,217	1,510
Medicine	204	308	531	631	545	655	597	616	851
Para-medical studies	93	151	291	323	464	553	593	601	659
Mathematics and natural sciences - total	1,305	1,342	1,816	1,943	1,906	2,256	2,068	2,124	2,350
Mathematics, statistics and computer sciences	277	411	750	881	835	818	653	636	685
Physical sciences	539	376	434	387	411	705	700	743	786
Biological sciences	489	555	632	675	660	733	715	745	879
Agriculture	262	231	399	327	310	3,006	280	318	308
Engineering and architecture	1,512	1,489	1,485	1,628	1,623	2,039	1,938	2,028	2,038

Table 5.5

Recipients of Degrees from Universities by Level of Degree and Field of Study 1974/75 - 1992/93 (cont.)

Field of study	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Bachelor's degree				
Total	6,638	6,740	8,113	8,919	8,845	10,192	9,995	10,506	11,144
Humanities - total	2,082	1,864	2,281	2,341	2,426	2,546	2,454	2,548	2,605
General humanities	..	723	945	1,028	1,117	1,041	959	978	1013
Languages, literature and regional studies	..	622	678	660	712	753	748	789	824
Education and teacher training	..	368	413	417	385	376	388	446	455
Arts, crafts and applied arts	..	151	216	207	189	305	272	252	251
Special courses and miscellaneous	..	–	29	29	23	71	87	83	62
Social sciences - total	1,772	2,276	2,260	2,779	2,592	3,128	3,173	3,656	3,801
Social sciences	..	2,067	2,076	2,551	2,255	2,687	2,827	3,346	3446
Business and management	..	209	184	228	337	441	346	310	355
Law	398	282	489	373	416	455	496	419	483
Medicine - total	62	118	380	495	595	745	764	740	1,043
Medicine[1]	–	–	118	203	176	233	228	232	481
Para-medical studies	..	118	262	292	419	512	536	508	562
Mathematics and natural sciences - total	741	798	1,212	1,346	1,277	1,513	1,342	1,300	1,456
Mathematics, statistics and computer sciences	..	311	656	758	715	638	498	474	517
Physical sciences	..	160	216	218	224	465	451	453	481
Biological sciences	..	327	340	370	338	410	393	373	458
Agriculture	195	152	317	242	222	166	185	214	214
Engineering and architecture	1,388	1,250	1,174	1,343	1,317	1,639	1,581	1,629	1542

1. In 1992/93 the University of Tel-Aviv granted for the first time a Bachelor's degree in medicine.

Table 5.5

Recipients of Degrees from Universities by Level of Degree and Field of Study 1974/75 - 1992/93 (cont.)

Field of study	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Master's degree				
Total	1,233	1,652	2,140	2,200	2,274	2,790	2,726	3,068	3,153
Humanities - total	195	271	386	388	414	464	498	536	531
General humanities	..	70	106	121	134	153	161	144	161
Languages, literature and regional studies	..	68	85	92	83	83	92	102	84
Education and teacher training	..	97	168	154	180	206	209	254	246
Arts, crafts and applied arts	..	24	26	19	14	20	31	31	31
Special courses and miscellaneous	..	12	1	2	3	2	5	5	9
Social sciences - total	259	444	577	647	682	931	923	1,117	1,082
Social sciences	..	263	320	326	341	490	517	587	685
Business and management	..	181	257	321	341	441	406	530	397
Law	18	13	12	14	19	6	14	10	22
Medicine - total	232	331	427	443	403	432	401	437	437
Medicine	..	301	405	419	363	397	346	361	351
Para-medical studies	..	30	22	24	40	35	55	76	86
Mathematics and natural sciences - total	372	326	409	397	431	507	517	558	608
Mathematics, statistics and computer sciences	..	62	76	83	87	146	124	115	121
Physical sciences	..	117	126	110	123	166	169	199	219
Biological sciences	..	147	207	204	221	195	224	244	268
Agriculture	48	62	67	71	68	122	74	83	70
Engineering and architecture	109	205	262	240	257	328	299	327	403

Table 5.5

Recipients of Degrees from Universities by Level of Degree and Field of Study 1974/75 - 1992/93 (cont.)

Field of study	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Doctorate				
Total	273	378	356	371	390	450	404	510	556
Humanities - total	40	69	51	71	92	74	70	85	90
General humanities	..	35	22	35	47	34	25	34	49
Languages, literature and regional studies	..	25	16	23	25	21	23	20	20
Education and teacher training	..	5	12	12	15	16	17	25	16
Arts, crafts and applied arts	..	4	1	1	5	3	5	5	5
Special courses and miscellaneous	..	–	–	–	–	–	–	1	–
Social sciences - total	17	37	27	38	24	33	30	47	47
Social sciences	..	31	23	32	18	28	26	40	40
Business and management	..	6	4	6	6	5	4	7	7
Law	3	6	4	3	2	3	3	5	1
Medicine - total	3	10	15	16	11	31	25	26	22
Medicine	..	7	8	9	6	25	23	23	19
Para-medical studies	..	3	7	7	5	6	2	3	3
Mathematics and natural sciences - total	176	205	195	184	192	233	205	264	285
Mathematics, statistics and computer sciences	..	36	18	25	27	31	28	45	46
Physical sciences	..	93	92	58	64	74	79	91	86
Biological sciences	..	76	85	101	101	128	98	128	153
Agriculture	19	17	15	14	20	18	21	21	24
Engineering and architecture	15	34	49	45	49	58	50	62	87

Table 5.5

Recipients of Degrees from Universities by Level of Degree and Field of Study 1974/75 - 1992/93 (cont.)

Field of study	1974/75	1979/80	1984/85	1985/86	1986/87	1989/90	1990/91	1991/92	1992/93
					Diploma				
Total	655	601	609	560	580	483	508	574	720
Humanities - total	608	537	594	534	556	448	466	522	689
General humanities	..	16	–	–	–	–	–	–	–
Languages, literature and regional studies	..	28	10	7	5	9	10	15	9
Education and teacher training	..	442	533	467	503	399	425	469	619
Arts, crafts and applied arts	–	–	–	–	–	–	–	–	15
Special courses and miscellaneous	..	51	51	60	48	40	31	38	46
Social sciences - total	31	51	15	10	18	18	30	26	16
Social sciences	..	49	15	10	18	18	30	26	16
Business and management	..	2	–	–	–	–	–	–	–
Law	–	–	–	–	–	–	–	–	–
Medicine - total	–	–	–	–	–	–	–	14	8
Medicine	–	–	–	–	–	–	–	–	–
Para-medical studies	–	–	–	–	–	–	–	14	8
Mathematics and natural sciences - total	16	13	–	16	6	3	4	2	1
Mathematics, statistics and computer sciences	..	2	–	15	6	3	3	2	1
Physical sciences	..	6	–	1	–	–	1	–	–
Biological sciences	..	5	–	–	–	–	–	–	–
Agriculture	–	–	–	–	–	–	–	–	–
Engineering and architecture	..	–	–	–	–	8	8	10	6

Table 5.6

Recipients of Degrees from Universities by Institution and Field of Study 1992/93

Field of study	Total	Institution						
		Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of The Negev	Weizmann Institute of Science
Grand total	15,573	3,827	1,892	4,346	2,140	1,731	1479	158
Humanities - total	3,915	919	64	1,120	783	751	278	–
General humanities	1,223	205	–	449	195	289	85	–
Languages, literature and regional studies	937	272	–	184	186	232	63	–
Education and teacher training	1,336	306	64	319	361	156	130	–
Arts, crafts and applied arts	302	49	–	168	23	62	–	–
Special courses and miscellaneous	117	87	–	–	18	12	–	–
Social sciences - total	4,946	1,241	54	1,448	1,010	815	378	–
Social sciences	4,187	1,125	23	1,019	827	815	378	–
Business and management	759	116	31	429	183	–	–	–
Law	506	165	–	246	95	–	–	–
Medicine - total	1,510	514	170	656	–	32	138	–
Medicine[1]	851	234	170	368	–	–	79	–
Para-medical studies	659	280	–	288	–	32	59	–
Mathematics and natural sciences - total	2,350	680	335	599	252	133	193	158
Mathematics, statistics and computer sciences	685	159	143	164	56	111	30	22
Physical sciences	786	282	122	153	93	–	77	59
Biological sciences	879	239	70	282	103	22	86	77
Agriculture	308	308	–	–	–	–	–	–
Engineering and architecture	2,038	–	1,269	277	–	–	492	–

1. In 1992/93 the University of Tel-Aviv granted for the first time a Bachelor's degree in medicine.

Table 5.7

Recipients of degrees in universities, by Level of Degree and Field of Study 1992/93

Field of study	Level of degree				
	Total	Bachelor's degree	Master's degree	Doctorate	Diploma[1]
Grand total	15,573	11,144	3,153	556	720
Humanities - total	3,915	2,605	531	90	689
General humanities	1,223	1,013	161	49	–
Languages, literature and regional studies	937	824	84	20	9
Education and teacher training	1,336	455	246	16	619
Arts, crafts and applied arts	302	251	31	5	–
Special courses and miscellaneous	117	62	9	–	46
Social sciences - total	4,946	3,801	1,082	47	16
Social sciences	4,187	3,446	685	40	16
Business and management	759	355	397	7	–
Law	506	483	22	1	–
Medicine - total	1,510	1,043	437	22	–
Medicine[2]	851	481	351	19	–
Para-medical studies	659	562	86	3	–
Mathematics and natural sciences - total	2,350	1,456	608	285	1
Mathematics, statistics and computer sciences	685	517	121	46	1
Physical sciences	786	481	219	86	–
Biological sciences	879	458	268	153	–
Agriculture	308	214	70	24	–
Engineering and architecture	2,038	1,542	403	87	6

1. In addition, 450 students received a teaching diploma together with a degree and were counted here as the recipient of a degree.
2. In 1992/93 the University of Tel-Aviv granted for the first time a Bachelor's degree in medicine.

Table 5.8

Women Recipients of Degrees in Universities by Level of Degree and Field of Study 1992/93

Field of study	Total	Level of degree			
		Bachelor's degree	Master's degree	Doctorate	Diploma[1]
Grand total	8,240	5,961	1,526	211	542
Humanities - total	2,862	1,925	375	41	521
General humanities	640	547	78	15	–
Languages, literature and regional studies	790	703	68	11	8
Education and teacher training	1,075	405	199	13	458
Arts, crafts and applied arts	247	208	23	2	14
Special courses and miscellaneous	110	62	7	–	41
Social sciences - total	2,597	2,014	548	22	13
Social sciences	2,324	1,877	416	18	13
Business and management	273	137	132	4	–
Law	214	201	12	1	–
Medicine - total	918	696	205	10	7
Medicine[2]	365	214	143	8	–
Para-medical studies	553	482	62	2	7
Mathematics and natural sciences - total	1,167	767	288	112	–
Mathematics, statistics and computer sciences	241	194	37	10	–
Physical sciences	316	226	75	15	–
Biological sciences	610	347	176	87	–
Agriculture	142	105	27	10	–
Engineering and architecture	340	253	71	15	1

1. In addition, 391 students received a teaching diploma together with a degree and were counted as a recipient of a degree.
2. In 1992/93 the University of Tel-Aviv granted for the first time a Bachelor's degree in medicine.

Table 5.9

Recipients of Bachelor's Degrees from Universities[1] by Population Group and Continent of Origin 1980/81 - 1989/90

Population group and continent of origin	1980/81	1982/83	1984/85	1988/89	1989/90
			Absolute numbers		
Grand total	7,000	7,124	8,113	9,805	10,192
Jews - total	6,755	6,811	7,732	9,217	9,642
Born in Israel, total	4,958	5,115	5,992	7,567	7,896
Father born in: Israel	716	879	1,276	2,111	2,507
Asia-Africa	878	1,056	1,338	1,945	2,208
Europe-America	3,364	3,181	3,379	3,512	3,182
Born in Asia-Africa	574	463	541	442	444
Born in Europe-America	1,223	1,233	1,198	1,207	1,302
Non-Jews - total	245	313	381	588	550
			Percentages		
Grand total	100.0	100.0	100.0	100.0	100.0
Jews - total	96.5	95.6	95.3	94.0	94.6
Born in Israel, total	70.8	71.8	73.9	77.2	77.5
Father born in: Israel	10.2	12.3	15.7	21.5	24.6
Asia-Africa	12.5	14.8	16.5	19.8	21.7
Europe-America	48.1	44.6	41.6	35.8	31.2
Born in Asia-Africa	8.2	6.5	6.7	4.5	4.4
Born in Europe-America	17.5	17.3	14.8	12.3	12.8
Non-Jews - total	3.5	4.4	4.7	6.0	5.4

Table 5.10

Recipients of Degrees from Universities by Level of Degree, Age, Median Age, Sex, and Field of Study 1984/85, 1988/89, 1989/90

Age, median age, sex and field of study	Level of degree and year							
	Bachelor's degree		Master's degree		Doctorate		Diploma	
	1984/85	1989/90	1984/85	1989/90	1984/85	1989/90	1984/85	1989/90
Age								
Total - percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
21-	3.2	2.5	–	–	–	–	–	0.7
22-24	24.8	28.6	2.3	1.9	–	0.2	18.7	18.2
25-29	49.5	49.9	39.4	37.8	6.0	6.7	48.3	47.9
30-34	11.1	9.6	32.5	31.4	38.7	38.3	15.8	15.2
35-44	8.0	7.2	16.7	21.7	42.7	44.4	12.7	14.3
45-54	2.8	1.9	7.0	5.8	9.0	8.4	3.5	3.5
55+	0.6	0.3	2.1	1.4	3.6	2.0	1.0	0.2
Median Age	27.2	26.9	31.1	31.6	35.6	36.1	28.2	28.2
Median Age by:								
Sex								
Men	27.8	27.6	31.5	31.7	36.9	35.7	28.7	28.1
Women	26.4	26.0	30.8	31.5	34.8	36.7	28.2	28.1
Field of study								
Humanities	28.3	27.9	39.2	38.9	..	..	..	..
Social sciences	27.4	26.8	32.3	32.6	..	..	..	..
Law	27.7	27.6	..	–	..	..	..	..
Medicine	26.2	26.4	30.1	30.5	..	..	..	..
Mathematics & natural sciences	25.4	25.7	28.2	28.9	..	34.1	..	..
Agriculture	27.0	26.4	..	31.7	..	..	..	..
Engineering	27.2	26.9	32.0	32.2	..	..	..	..

Table 5.11

Recipients of a Bachelor's Degree from the Open University, by Sex and Field of Study 1982/83 - 1992/93

		Sex		Field of study	
	Total	Men	Women	Humanities & social sciences	Mathematics & natural sciences
1982/83	41	28	13	31	10
1983/84	81	39	42	55	26
1984/85	101	64	37	73	28
1985/86	132	75	57	102	30
1986/87	227	107	120	180	47
1987/88	194	90	104	168	26
1988/89	281	153	128	243	38
1989/90	304	154	150	270	34
1990/91	339	178	161	296	43
1991/92	350	196	154	317	33
1992/93	405	185	220	357	48

Table 5.12

Recipients of Bachelor's Degrees in Teacher Training Colleges and other Institutions of Higher Education, by Field of Study 1979/80 - 1992/93

		Field of study			
	Total	Applied sciences & engineering[1]	Economics & business administration	Arts and design[1]	Education
1979/80	197	30	–	92	75
1980/81	277	67	22	111	77
1981/82	449	126	10	129	184
1982/83	395	48	30	136	181
1983/84	500	105	52	178	165
1984/85	457	127	50	141	139
1985/86	621	121	56	204	240
1986/87	662	120	61	170	311
1987/88	654	92	66	177	319
1988/89	953	88	124	229	512
1989/90	1,055	121	98	181	655
1990/91	1,232	107	100	205	820
1991/92	1,646	110	348	213	975
1992/93	1,955	65	545	234	1,111

1. Up till 1987/88 recipients of degrees in textile design and fashion were included in " applied sciences and engineering". Since 1987/88 they were included in "arts and design".

Table 5.13

Recipients of Bachelor's Degrees from Other Institutions of Higher Education by Institution[1] 1980/81 - 1992/93

	Institution				
	Bezalel - Academy of Arts and Design	Rubin Academy of Music, Jerusalem	Jerusalem College of Technology	Shenkar - College of Textile Technology and Fashion	Ruppin Institute of Agriculture
1980/81	91	20	39	28	22
1981/82	102	27	53	73	10
1982/83	97	39	30	18	30
1983/84	134	44	19	86	52
1984/85	104	37	65	62	50
1985/86	122	82	38	83	56
1986/87	109	61	49	71	61
1987/88	105	46	51	66	66
1988/89	135	64	68	44	61
1989/90	99	57	84	56	49
1990/91	127	46	61	78	54
1991/92	117	60	61	85	56
1992/93	128	70	37	64	54

1. Does not include the Tel-Aviv College of Management.

Chapter 6

Staff at Institutions of Higher Education

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Table 6.1

University Staff by Type of Budgetary Financing in Full-Time Equivalent Positions 1978/79 - 1992/93

	Type of Budgetary Financing			
	Total	Ordinary budget	Closed budget	Research budget
1978/79	17,736	14,383	870	2,489
1981/82	18,114	14,724	960	2,430
1982/83[1]	18,260	14,890	999	2,371
1983/84[1]	18,091	14,724	1,027	2,340
1984/85	17,716	14,163	1,067	2,486
1985/86§	16,920	13,222	1,100	2,598
1986/87§	17,084	13,241	850	2,993
1987/88§	17,234	13,635	1,089	2,510
1988/89§	17,045	13,527	1,090	2,428
1989/90§	16,555	13,178	1,223	2,154
1990/91§	16,832	13,275	1,326	2,231
1991/92	17,539	13,482	1,359	2,698
1992/93	18,059	14,011	1,286	2,762

Source: The Planning and Budgeting Committee.

1. Does not include the Institutes for Applied Research of the Ben-Gurion University of the Negev (150.9 FTE Positions in 1981/82 and 186 FTE Positions in 1984/85).

Table 6.2

University Staff Financed from the Ordinary Budget by Institution and Type of Staff in Full-Time Equivalent Positions 1984/85 - 1992/93

Institution & type of staff	1984/85	1985/86§	1986/87§	1987/88§	1988/89§	1989/90§	1990/91§	1991/92	1992/93
All institutions									
Total	14,163	13,222	13,241	13,635	13,527	13,178	13,275	13,482	14,011
Senior academic staff	6,698	3,690	3,751	3,883	3,889	3,884	3,977	4,051	4,209
Junior academic staff[1]	..	2,153	1,848	1,782	1,650	1,335	1,276	1,305	1,412
Other teaching staff[2]	..	663	526	807	870	911	992	1,091	1,233
Technical staff	2,347	2,326	2,371	2,427	2,413	2,412	2,429	2,415	2,486
Administrative staff	5,117	4,931	4,745	4,736	4,705	4,636	4,601	4,620	4,671
Hebrew University									
Total	3,931	3,843	3,568	3,387	3,328	3,260	3,294	3,363	3,410
Senior academic staff	1,015	1,033	1,060	1,050	1,041	1,036	1,035	1,037	1,062
Junior academic staff[1]	689	693	580	562	508	443	468	496	521
Other teaching staff[2]	64	70	63	65	69	69	89	109	104
Technical staff	485	472	459	431	421	425	431	445	450
Administrative staff	1,678	1,575	1,406	1,279	1,289	1,287	1,270	1,276	1,273
Technion									
Total	2,374	2,256	2,083	2,069	2,024	2,024	2,026	2,030	2,039
Senior academic staff	1,189	493	481	521	526	532	550	569	570
Junior academic staff[1]	..	392	231	141	95	60	31	14	12
Other teaching staff[2]	..	195	197	223	239	265	272	284	282
Technical staff	539	548	560	577	570	575	580	578	592
Administrative staff	645	628	614	607	594	592	593	585	583
Tel Aviv University									
Total	3,352	3,237	3,048	3,520	3,542	3,389	3,384	3,450	3,600
Senior academic staff	901	881	857	925	919	926	960	1,001	1,037
Junior academic staff[1]	761	717	685	762	737	573	526	531	587
Other teaching staff[2]	208	208	116	287	332	332	358	360	397
Technical staff	352	348	345	387	391	398	394	399	398
Administrative staff	1,130	1,083	1,045	1,159	1,163	1,160	1,144	1,159	1,180

Table 6.2

University Staff Financed from the Ordinary Budget by Institution and Type of Staff in Full-Time Equivalent Positions 1984/85 - 1992/93 (cont.)

Institution & type of staff	1984/85	1985/86§	1986/87§	1987/88§	1988/89§	1989/90§	1990/91§	1991/92	1992/93
Bar-Ilan University									
Total	1,275	1,252	1,295	1,299	1,303	1,296	1,318	1,354	1,441
Senior academic staff	417	418	426	440	454	459	459	477	499
Junior academic staff[1]	177	156	146	131	123	108	103	108	105
Other teaching staff[2]	45	40	61	67	61	64	88	87	116
Technical staff	98	98	131	142	143	142	139	145	149
Administrative staff	538	540	531	519	522	523	529	539	572
Haifa University									
Total	769	776	793	826	821	791	791	858	961
Senior academic staff	282	284	294	293	303	292	286	301	320
Junior academic staff[1]	85	90	91	81	72	64	61	72	94
Other teaching staff[2]	48	48	48	89	93	87	90	117	165
Technical staff	36	37	38	39	39	42	42	46	48
Administrative staff	318	317	322	324	314	306	312	322	333
Ben-Gurion University in the Negev									
Total	1,162	1,078	1,135	1,229	1,230	1,189	1,265	1,245	1,392
Senior academic staff	346	290	344	381	381	383	416	400	452
Junior academic staff[1]	118	105	115	105	114	87	86	84	93
Other teaching staff[2]	88	95	37	75	74	94	95	134	167
Technical staff	218	213	227	235	231	224	265	227	273
Administrative staff	392	375	412	433	430	401	403	400	407
Weizmann Institute of Science									
Total	1,301	1,321	1,319	1,305	1,280	1,231	1,198	1,182	1,170
Senior academic staff	264	291	289	274	266	257	271	266	269
Junior academic staff[1]	–	–	–	–	–	–	–	–	–
Other teaching staff[2]	3	7	4	–	2	–	–	1	2
Technical staff	619	611	611	616	618	605	578	575	576
Administrative staff	415	412	415	415	394	369	348	340	322

Source: The Planning and Budgeting Committee.

1. Including teaching and research assistants.
2. Including external teachers.

Table 6.3

Senior Academic Staff Financed from the Ordinary Budget by Institution and Rank in Full-Time Equivalent Positions 1984/85 - 1992/93

Institution and rank	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
All Institutions									
Total	..	3,690	3,751	3,883	3,889	3,884	3,977	4,051	4,209
Full professor	..	938	930	1,005	1,019	1,076	1,152	1,187	1,259
Associate professor	..	939	984	1,030	1,053	1,040	1,073	1,103	1,129
Senior lecturer	..	1,135	1,143	1,184	1,158	1,109	1,126	1,142	1,177
Lecturer	..	678	694	664	659	659	626	618	645
Hebrew University									
Total	1,015	1,033	1,060	1,050	1,041	1,036	1,035	1,037	1,062
Full professor	325	344	340	353	355	379	388	389	410
Associate professor	237	258	254	264	258	236	233	238	246
Senior lecturer	264	239	267	251	242	234	234	250	239
Lecturer	189	192	199	182	186	187	180	160	167
Technion									
Total	..	493	481	521	526	532	550	569	570
Full professor	..	150	144	156	163	181	191	194	205
Associate professor	..	156	156	176	190	187	183	184	183
Senior lecturer	..	144	136	147	129	124	130	141	129
Lecturer	..	43	45	42	44	40	46	51	53
Tel Aviv University									
Total	901	881	857	925	919	926	960	1,001	1,037
Full professor	200	213	198	229	234	239	255	279	295
Associate professor	225	225	240	253	249	254	269	283	283
Senior lecturer	284	272	252	293	293	289	287	284	303
Lecturer	192	171	167	150	143	144	149	155	157

Table 6.3

Senior Academic Staff Financed from the Ordinary Budget by Institution and Rank in Full-Time Equivalent Positions 1984/85 - 1992/93 (cont.)

Institution and rank	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Bar-Ilan University									
Total	417	418	426	440	454	458	459	477	499
Full professor	61	64	60	70	67	67	76	88	95
Associate professor	72	77	94	89	106	111	113	121	121
Senior lecturer	169	169	165	170	171	159	158	158	169
Lecturer	115	108	107	111	110	121	111	110	114
Haifa University									
Total	282	284	295	293	303	292	286	301	320
Full professor	27	31	30	32	33	34	41	44	49
Associate professor	50	44	52	54	61	59	55	57	58
Senior lecturer	114	119	122	124	126	121	123	127	139
Lecturer	91	90	91	83	83	78	67	73	74
Ben-Gurion University in the Negev									
Total	346	290	344	381	381	383	416	400	452
Full professor	55	45	59	69	72	77	90	87	100
Associate professor	74	71	85	100	103	109	120	119	138
Senior lecturer	136	116	134	135	132	125	137	128	141
Lecturer	81	58	66	77	74	72	69	65	73
Weizmann Institute of Science									
Total	264	241	289	274	266	257	271	266	269
Full professor	85	91	99	98	96	100	109	105	106
Associate professor	105	108	103	94	86	83	100	101	100
Senior lecturer	72	76	68	63	64	55	57	55	57
Lecturer	2	16	19	19	20	19	5	5	7

Source: The Planning and Budgeting Committee.

Table 6.4

University Staff by Type of Budgetary Financing and Type and Rank of Staff in Full-Time Equivalent Positions 1992/93

Type & rank of staff	Total	Type of Budgetary Financing		
		Ordinary budget	Closed budget	Research budget
Grand total	18,059.3	14,011.1	1,286.0	2,762.2
A. Teaching & research staff - total	8,588.6	6,854.9	519.7	1,214.0
1. Senior academic staff - total	4,685.9	4,209.3	153.2	323.4
Full professor	1,285.7	1,258.5	9.4	17.8
Associate professor	1,172.4	1,128.6	2.6	41.2
Senior lecturer	1,370.1	1,177.1	81.3	111.7
Lecturer	857.7	645.1	59.9	152.7
2. Junior academic staff - total	923.7	742.2	50.2	131.3
Senior instructor	92.7	79.2	4.2	9.3
Instructor	335.8	262.8	16.4	56.6
Assistant "B"	143.5	124.9	6.3	12.3
Assistant "A"	351.7	275.3	23.3	53.1
3. Research and teaching assistants	737.9	670.1	28.8	39.0
4. Other academic staff	1,071.1	219.3	147.5	704.3
Teachers (M.D. track)	88.3	86.7	1.4	0.2
Teachers (teacher track)	173.5	59.0	88.9	25.6
Others	809.3	73.6	57.2	678.5
5. External teachers	1,170.0	1,014.0	140.0	16.0
Senior	457.3	385.4	63.0	8.9
Junior	712.7	628.6	77.0	7.1
B. Technical staff - total	3,581.1	2,485.7	252.5	842.9
Engineers	796.9	522.1	66.7	208.1
Technicians	1,669.4	1,363.6	65.0	240.8
Microbiologists & laboratory assistants	782.4	578.2	15.5	188.7
Special contract	279.3	–	100.9	178.4
Other	53.1	21.8	4.4	26.9
C. Administrative staff - total	5,889.6	4,670.5	513.8	705.3
General administration	3,881.7	3,126.8	350.9	404.0
Humanities & social science graduates	1,800.9	1,417.4	129.5	254.0
Special contract	129.8	68.3	26.4	35.1
Other	18.4	17.3	–	0.3
Apprentices	58.8	40.7	6.2	–

Source: The Planning and Budgeting Committee.

Table 6.5

University Staff from All Budgetary Sources by Institution and Type and Rank of Staff in Full-Time Equivalent Positions 1992/93

Type & rank of staff	Institution							
	Total	Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev	Weizmann Institute of Science
Grand total	18,059.3	4,910.2	2,821.7	4,317.4	1,583.4	1,096.3	1,784.0	1,546.3
A. Teaching & research staff - total	8,588.6	2,240.0	1,157.0	2,341.8	820.9	663.2	957.3	408.4
1. Senior academic staff - total	4,685.9	1,305.8	644.8	1,063.4	508.9	331.5	489.3	342.2
Full professor	1,285.7	422.3	207.2	300.2	94.9	50.1	104.8	106.2
Associate professor	1,172.4	266.5	185.9	286.2	121.5	58.2	144.0	110.1
Senior lecturer	1,370.1	344.5	155.3	311.0	173.2	145.7	153.3	87.1
Lecturer	857.7	272.5	96.4	166.0	119.3	77.5	87.2	38.8
2. Junior academic staff - total	923.7	414.2	66.0	241.3	112.1	26.5	63.6	–
Senior instructor	92.7	13.4	–	30.8	37.7	6.4	4.4	–
Instructor	335.8	58.6	43.0	134.7	44.3	12.8	42.4	–
Assistant "B"	143.5	64.1	2.8	47.3	14.3	2.0	13.0	–
Assistant "A"	351.7	278.1	20.2	28.5	15.8	5.3	3.8	–
3. Research and teaching assistants	737.9	245.2	9.6	347.4	5.1	94.2	36.4	–
4. Other academic staff	1,071.1	142.6	184.5	347.0	67.8	91.4	171.6	66.2
Teachers (M.D. track)	88.3	0.1	29.4	58.8	–	–	–	–
Teachers (teacher track)	173.5	33.3	1.9	68.7	–	57.7	11.9	–
Others	809.3	109.2	153.2	219.5	67.8	33.7	159.7	–
5. External teachers	1,170.0	132.2	252.1	342.7	127.0	119.6	196.4	–
Senior	457.3	68.8	65.4	141.4	46.3	56.7	78.7	–
Junior	712.7	63.4	186.7	201.3	80.7	62.9	117.7	–
B. Technical staff - total	3,581.1	679.0	892.8	707.4	159.0	49.8	328.3	764.8
Engineers	796.9	194.1	260.6	102.6	13.8	19.5	114.5	91.8
Technicians	1,669.4	222.0	572.0	199.1	115.4	24.5	181.3	355.1
Microbiologists & laboratory assistants	782.4	259.8	59.9	117.4	21.4	5.8	26.6	291.5
Special contract	279.3	–	0.3	270.0	8.4	–	–	0.6
Other	53.1	3.1	–	18.3	–	–	5.9	25.8
C. Administrative staff - total	5,889.6	1,991.2	771.9	1,268.2	603.5	383.3	498.4	373.1
General administration	3,881.7	1,240.2	569.3	814.7	377.3	231.0	328.3	320.9
Humanities & social science graduates	1,800.9	683.1	202.6	403.5	180.7	132.6	160.5	37.9
Special contract	129.8	–	–	47.0	45.5	19.7	9.6	8.0
Other	18.4	11.1	–	3.0	–	–	–	4.3
Apprentices	58.8	56.8	–	–	–	–	–	2.0

Source: The Planning and Budgeting Committee.

Table 6.6

University Staff from the Ordinary Budget by Institution and Type and Rank of Staff in Full-Time Equivalent Positions 1992/93

Type & rank of staff	Institution							
	Total	Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev	Weizmann Institute of Science
Grand total	14,011.1	3,409.6	2,038.9	3,599.6	1,440.9	960.8	1,391.8	1,169.5
A. Teaching & research staff - total	6,854.9	1,686.6	863.8	2,021.1	720.5	579.6	711.5	271.8
1. Senior academic staff - total	4,209.3	1,061.9	569.8	1,037.1	499.3	319.9	451.9	269.4
Full professor	1,258.5	409.6	204.9	295.4	94.6	48.9	99.5	105.6
Associate professor	1,128.6	245.9	182.7	282.5	121.3	58.2	138.0	100.0
Senior lecturer	1,177.1	239.2	129.2	302.7	169.3	138.8	141.0	56.9
Lecturer	645.1	167.2	53.0	156.5	114.1	74.0	73.4	6.9
2. Junior academic staff - total	742.2	315.9	4.2	240.0	99.7	22.9	59.5	–
Senior instructor	79.2	4.4	–	30.5	34.3	5.6	4.4	–
Instructor	262.8	28.8	3.4	133.7	43.3	12.4	41.2	–
Assistant "B"	124.9	55.0	0.8	47.3	9.8	1.6	10.4	–
Assistant "A"	275.3	227.7	–	28.5	12.3	3.3	3.5	–
3. Research and teaching assistants	670.1	205.2	8.2	347.1	5.1	71.4	33.1	–
4. Other academic staff	219.3	9.6	34.3	61.2	41.8	62.0	8.0	2.4
Teachers (M.D. track)	86.7	0.1	29.4	57.2	–	–	–	–
Teachers (teacher track)	59.0	6.1	1.9	4.0	–	42.8	4.2	–
Others	73.6	3.4	3.0	–	41.8	19.2	3.8	–
5. External teachers	1,014.0	94.0	247.3	335.7	74.6	103.4	159.0	–
Senior	385.4	52.6	60.6	137.5	32.4	48.3	54.0	–
Junior	628.6	41.4	186.7	198.2	42.2	55.1	105.0	–
B. Technical staff - total	2,485.7	449.8	592.0	398.2	148.9	48.0	272.9	575.9
Engineers	522.1	94.4	160.1	75.7	13.8	19.5	91.8	66.8
Technicians	1,363.6	171.7	378.5	186.8	114.4	23.0	163.0	326.2
Microbiologists & laboratory assistants	578.2	183.7	53.4	117.4	20.7	5.5	14.6	182.9
Special contract	–	–	–	–	–	–	–	–
Other	21.8	–	–	18.3	–	–	3.5	–
C. Administrative staff - total	4,670.5	1,273.2	583.1	1,180.3	571.5	333.2	407.4	321.8
General administration	3,126.8	812.7	419.8	772.8	364.4	201.4	276.1	279.6
Humanities & social science graduates	1,417.4	409.8	163.3	396.0	172.7	122.0	123.7	29.9
Special contract	68.3	–	–	8.5	34.4	9.8	7.6	8.0
Other	17.3	10.0	–	3.0	–	–	–	4.3
Apprentices	40.7	40.7	–	–	–	–	–	–

Source: The Planning and Budgeting Committee.

Table 6.7

University Staff from the Closed Budget by Institution and Type and Rank of Staff in Full-Time Equivalent Positions 1992/93

Type & rank of staff	Total	Institution						
		Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev	Weizmann Institute of Science
Grand total	1,286.0	538.3	46.9	315.5	91.7	135.5	138.5	19.6
A. Teaching & research staff - total	519.7	182.9	6.1	112.6	71.7	83.6	57.7	5.1
1. Senior academic staff - total	153.2	111.6	0.6	9.5	9.6	11.6	8.8	1.5
Full professor	9.4	1.2	0.6	4.4	–	–	1.7	–
Associate professor	2.6	0.2	–	0.3	0.2	–	1.9	–
Senior lecturer	81.3	64.9	–	2.5	3.9	6.9	1.7	1.4
Lecturer	59.9	45.3	–	2.3	5.2	3.5	3.5	0.1
2. Junior academic staff - total	50.2	32.7	–	1.0	10.9	3.6	2.0	–
Senior instructor	4.2	–	–	–	3.4	0.8	–	–
Instructor	16.4	14.3	–	1.0	–	0.4	0.7	–
Assistant "B"	6.3	0.4	–	–	4.5	0.4	1.0	–
Assistant "A"	23.3	18.0	–	–	3.0	2.0	–	–
3. Research and teaching assistants	28.8	4.2	–	–	–	22.8	0.8	–
4. Other academic staff	147.5	5.5	–	94.8	–	29.4	14.2	–
Teachers (M.D. track)	1.4	–	–	1.4	–	–	–	–
Teachers (teacher track)	88.9	5.5	–	64.7	–	14.9	3.8	–
Others	57.2	–	–	28.7	–	14.5	10.4	–
5. External teachers	140.0	28.9	4.8	7.0	51.2	16.2	31.9	–
Senior	63.0	11.0	4.8	3.9	13.9	8.4	21.0	–
Junior	77.0	17.9	–	3.1	37.3	7.8	10.9	–
B. Technical staff - total	252.5	73.2	17.7	139.5	–	1.8	17.1	3.2
Engineers	66.7	27.4	7.2	26.9	–	–	5.1	–
Technicians	65.0	33.4	8.4	12.3	–	1.5	6.9	2.5
Microbiologists & laboratory assistants	15.5	9.3	2.1	–	–	–	3.8	–
Special contract	100.9	–	–	100.3	–	–	–	–
Other	4.4	–	–	–	–	–	1.3	–
C. Administrative staff - total	513.8	282.2	23.1	63.4	20.0	50.1	63.7	11.3
General administration	350.9	202.2	20.4	41.6	11.8	29.6	39.0	6.3
Humanities & social science graduates	129.5	75.0	2.7	7.5	8.0	10.6	22.7	3.0
Special contract	26.4	–	–	14.3	0.2	9.9	2.0	–
Other	0.8	0.8	–	–	–	–	–	–
Apprentices	6.2	4.2	–	–	–	–	–	–

Source: The Planning and Budgeting Committee.

Table 6.8

University Staff from the Research Budget by Institution and Type and Rank of Staff in Full-Time Equivalent Positions 1992/93

Type & rank of staff	Total	Institution						
		Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev	Weizmann Institute of Science
Grand total	2,762.2	962.3	735.9	402.3	50.8	–	253.7	357.2
A. Teaching & research staff - total	1,214.0	370.5	287.1	208.1	28.7	–	188.1	131.5
1. Senior academic staff - total	323.4	132.3	74.4	16.8	–	–	28.6	71.3
Full professor	17.8	11.5	1.7	0.4	–	–	3.6	0.6
Associate professor	41.2	20.4	3.2	3.4	–	–	4.1	10.1
Senior lecturer	111.7	40.4	26.1	5.8	–	–	10.6	28.8
Lecturer	152.7	60.0	43.4	7.2	–	–	10.3	31.8
2. Junior academic staff - total	131.3	65.6	61.8	–	1.5	–	2.1	–
Senior instructor	9.3	9.0	–	–	–	–	–	–
Instructor	56.6	15.5	39.6	–	1.0	–	0.5	–
Assistant "B"	12.3	8.7	2.0	–	–	–	1.6	–
Assistant "A"	53.1	32.4	20.2	–	0.5	–	–	–
3. Research and teaching assistants	39.0	35.8	–	–	–	–	2.5	–
4. Other academic staff	704.3	127.5	150.2	191.0	26.0	–	149.4	60.2
Teachers (M.D. track)	0.2	–	–	0.2	–	–	–	–
Teachers (teacher track)	25.6	21.7	–	–	–	–	3.9	–
Others	678.5	105.8	150.2	190.8	26.0	–	145.5	–
5. External teachers	16.0	9.3	–	–	1.2	–	5.5	–
Senior	8.9	5.2	–	–	–	–	3.7	–
Junior	7.1	4.1	–	–	1.2	–	1.8	–
B. Technical staff - total	842.9	156.0	283.1	169.7	10.1	–	38.3	185.7
Engineers	208.1	72.3	93.3	–	–	–	17.6	24.9
Technicians	240.8	16.9	185.1	–	1.0	–	11.4	26.4
Microbiologists & laboratory assistants	188.7	66.8	4.4	–	0.7	–	8.2	108.6
Special contract	178.4	–	–	169.7	8.4	–	–	–
Other	26.9	–	–	–	–	–	1.1	25.8
C. Administrative staff - total	705.3	435.8	165.7	24.5	12.0	–	27.3	40.0
General administration	404.0	225.3	129.1	0.3	1.1	–	13.2	35.0
Humanities & social science graduates	254.0	198.3	36.6	–	–	–	14.1	5.0
Special contract	35.1	–	–	24.2	10.9	–	–	–
Other	0.3	0.3	–	–	–	–	–	–
Apprentices	11.9	11.9	–	–	–	–	–	–

Source: The Planning and Budgeting Committee.

Table 6.9.a

Senior Academic Staff Financed from the Ordinary Budget by Institution and Field of Study in Full-Time Equivalent Positions[1] and Percentages 1991/92

Field of study	Total	Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev	Weizmann Institute of Science
				Institution				
				Absolute numbers				
Total	4,053.8	1,041.3	569.2	1,000.8	476.8	300.5	399.4	265.8
Humanities	1,186.0	336.7	34.9	337.5	220.3	163.8	87.8	5.1
Social sciences	637.2	179.5	16.0	169.6	132.3	97.0	42.9	–
Law	70.8	26.9	–	25.9	14.2	3.8	–	–
Medicine	337.1	146.8	31.4	118.6	–	3.8	36.5	–
Mathematics, etc.	306.7	56.4	83.9	68.6	27.6	18.9	22.4	28.9
Physical sciences	509.1	129.3	79.4	99.2	33.5	–	48.2	119.6
Biological sciences	359.9	70.7	19.7	110.0	31.1	3.5	18.1	106.8
Agriculture	89.5	89.5	–	–	–	–	–	–
Engineering and architecture	460.4	–	304.1	63.4	–	–	93.0	–
Other	97.0	5.4	–	8.0	17.9	9.7	50.6	5.4
				Percentages				
Total	100.0	25.7	14.0	24.7	11.8	7.4	9.9	6.6
Humanities	100.0	28.4	2.9	28.5	18.6	13.8	7.4	0.4
Social sciences	100.0	28.2	2.5	26.6	20.8	15.2	6.7	–
Law	100.0	38.0	–	36.6	20.1	5.4	–	–
Medicine	100.0	43.6	9.3	35.2	–	1.1	10.8	–
Mathematics, etc.	100.0	18.4	27.3	22.4	9.0	6.2	7.3	9.4
Physical sciences	100.0	25.4	15.6	19.5	6.6	–	9.5	23.5
Biological sciences	100.0	19.7	5.5	30.6	8.6	1.0	5.0	29.7
Agriculture	100.0	100.0	–	–	–	–	–	–
Engineering and architecture	100.0	–	66.0	13.8	–	–	20.2	–
Other	100.0	5.6	–	8.2	18.5	10.0	52.1	5.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	29.3	32.3	6.1	33.7	46.2	54.5	22.0	1.9
Social sciences	15.7	17.2	2.8	16.9	27.7	32.3	10.7	–
Law	1.7	2.6	–	2.6	3.0	1.3	–	–
Medicine	8.3	14.1	5.5	11.9	–	1.3	9.1	–
Mathematics, etc.	7.6	5.4	14.7	6.9	5.8	6.3	5.6	10.9
Physical sciences	12.6	12.4	13.9	9.9	7.0	–	12.1	45.0
Biological sciences	8.9	6.8	3.5	11.0	6.5	1.2	4.5	40.2
Agriculture	2.2	8.6	–	–	–	–	–	–
Engineering and architecture	11.4	–	53.4	6.3	–	–	23.3	–
Other	2.4	0.5	–	0.8	3.8	3.2	12.7	2.0

Source: The Planning and Budgeting Committee.

1. For technical reasons, the figures for certain institutions in this table are slightly different than those appearing in Table 6.3. See Technical Appendix.

Table 6.9.b

Senior Academic Staff Financed from the Ordinary Budget by Institution and Field of Study in Full-Time Equivalent Positions[1] and Percentages 1992/93

Field of study	Total	Institution						
		Hebrew University	Technion	Tel-Aviv University	Bar-Ilan University	Haifa University	Ben-Gurion University of the Negev	Weizmann Institute of Science
				Absolute numbers				
Total	4,210.3	1,064.7	568.5	1,037.6	499.3	319.3	451.6	269.2
Humanities	1,216.2	334.2	35.2	354.7	226.8	168.1	92.2	5.0
Social sciences	654.5	181.3	17.0	169.5	142.2	98.0	46.6	–
Law	81.7	30.5	–	28.0	15.1	8.2	–	–
Medicine	340.8	146.6	32.0	122.4	–	3.3	36.5	–
Mathematics, etc.	340.6	65.4	83.8	69.1	31.3	29.3	28.7	33.0
Physical sciences	525.7	137.5	76.2	104.3	35.3	–	52.7	119.8
Biological sciences	363.0	70.9	20.5	106.2	30.7	4.2	24.1	106.5
Agriculture	93.7	93.7	–	–	–	–	–	–
Engineering and architecture	476.6	–	303.8	75.6	–	–	97.2	–
Other	117.4	4.6	–	7.8	18.1	8.2	73.7	5.0
				Percentages				
Total	100.0	25.3	13.5	24.6	11.9	7.6	10.7	6.4
Humanities	100.0	27.5	2.9	29.2	18.6	13.8	7.6	0.4
Social sciences	100.0	27.7	2.6	25.9	21.7	15.0	7.1	–
Law	100.0	37.3	–	34.3	18.4	10.0	–	–
Medicine	100.0	43.0	9.4	35.9	–	1.0	10.7	–
Mathematics, etc.	100.0	19.2	24.6	20.3	9.2	8.6	8.4	9.7
Physical sciences	100.0	26.2	14.5	19.8	6.7	–	10.0	22.8
Biological sciences	100.0	19.5	5.6	29.3	8.4	1.2	6.6	29.3
Agriculture	100.0	100.0	–	–	–	–	–	–
Engineering and architecture	100.0	–	63.7	15.9	–	–	20.4	–
Other	100.0	4.0	–	6.6	15.4	7.0	62.8	4.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities	28.9	31.4	6.2	34.2	45.4	52.6	20.4	1.8
Social sciences	15.5	17.0	3.0	16.3	28.5	30.7	10.3	–
Law	1.9	2.9	–	2.7	3.0	2.6	–	–
Medicine	8.1	13.8	5.6	11.8	–	1.0	8.1	–
Mathematics, etc.	8.1	6.1	14.7	6.7	6.3	9.2	6.4	12.3
Physical sciences	12.5	12.9	13.4	10.1	7.1	–	11.7	44.5
Biological sciences	8.6	6.7	3.6	10.2	6.1	1.3	5.3	39.5
Agriculture	2.2	8.8	–	–	–	–	–	–
Engineering and architecture	11.3	–	53.4	7.3	–	–	21.5	–
Other	2.8	0.4	–	0.8	3.6	2.6	16.3	1.9

Source: The Planning and Budgeting Committee.

1. For technical reasons, the figures for certain institutions in this table are slightly different than those appearing in Tables 6.3 and 6.6. See Technical Appendix.

Table 6.10

Senior Academic Staff Financed from the Ordinary Budget by Rank and Field of Study in Full-Time Equivalent Positions[1] and Percentages 1992/93

Field of study	Total	Rank			
		Full professor	Associate professor	Senior lecturer	Lecturer
			Absolute numbers		
Total	4,210	1,259	1,133	1,173	646
Humanities	1,216	200	274	490	252
Social sciences	655	131	180	192	152
Law	82	29	24	14	15
Medicine	341	97	112	86	46
Mathematics, stat. & comp. sc.	341	154	74	76	37
Physical sciences	526	280	139	78	28
Biological sciences	363	139	124	74	25
Agriculture	94	40	20	17	16
Engineering and architecture	477	166	154	108	49
Other	117	23	32	37	25
			Percentages		
Total	100.0	29.9	26.9	27.9	15.3
Humanities	100.0	16.4	22.6	40.3	20.7
Social sciences	100.0	19.9	27.4	29.4	23.2
Law	100.0	35.2	29.3	17.5	17.8
Medicine	100.0	28.5	32.7	25.1	13.6
Mathematics, stat. & comp. sc.	100.0	45.1	21.8	22.3	10.7
Physical sciences	100.0	53.2	26.5	14.9	5.4
Biological sciences	100.0	38.4	34.1	20.5	7.0
Agriculture	100.0	42.9	21.7	18.2	17.2
Engineering and architecture	100.0	34.8	32.3	22.6	10.3
Other	100.0	20.0	26.9	31.7	21.4

Source: The Planning and Budgeting Committee.

1. For technical reasons, some of the figures in this table are slightly different than those appearing in Tables 6.3 and 6.6. See Technical Appendix.

Table 6.11

Senior Academic Staff Financed from the Ordinary Budget by Mean Age, Age, Field of Study and Rank in Full-Time Equivalent Positions[1] 1992/93

Field of study and rank	Mean age	Age							
		Total	Under 30	30 - 34	35 - 39	40 - 44	45 - 54	55 - 64	65+
Grand total									
Total	51.5	4,210.9	1.6	102.3	351.1	589.0	1,641.9	1,249.6	275.5
Full professor	56.5	1,258.5	0.1	0.6	8.1	50.8	436.8	602.6	159.5
Associate professor	52.9	1,133.4	0.1	4.1	32.3	145.7	523.4	343.5	84.3
Senior lecturer	49.4	1,174.4	1.1	33.6	124.6	228.9	500.5	240.1	45.6
Lecturer	43.9	648.6	0.3	65.1	185.1	164.7	166.2	56.1	11.2
Humanities									
Total	52.7	1,216.4	–	14.9	57.6	157.9	505.6	387.6	92.8
Full professor	57.6	199.8	–	–	–	2.9	64.4	98.7	33.8
Associate professor	54.9	274.4	–	1.0	2.0	19.8	113.8	112.8	25.0
Senior lecturer	52.3	490.4	–	3.0	19.1	60.8	239.3	141.2	27.0
Lecturer	47.0	252.8	–	11.9	36.5	74.5	88.0	34.9	7.0
Social sciences									
Total	50.1	654.5	0.2	17.0	67.7	110.3	272.2	164.7	22.6
Full professor	55.6	130.4	0.1	0.1	1.1	6.5	49.0	63.9	9.7
Associate professor	52.5	179.6	–	0.1	1.0	26.0	90.0	58.2	4.2
Senior lecturer	49.6	192.4	0.1	3.6	16.5	36.5	93.4	34.2	8.2
Lecturer	43.0	152.1	–	13.2	49.0	41.3	39.8	8.3	0.5
Law									
Total	49.2	81.9	0.3	8.0	7.1	8.0	36.7	19.9	2.0
Full professor	54.6	28.8	–	–	–	1.6	13.5	12.6	1.2
Associate professor	51.4	24.2	–	–	0.1	4.4	13.4	5.5	0.8
Senior lecturer	44.9	14.3	–	2.0	3.9	1.0	5.6	1.8	–
Lecturer	39.2	14.7	0.3	6.0	3.1	1.0	4.3	–	–
Medicine									
Total	52.0	341.1	–	4.1	23.3	51.6	143.0	84.1	35.0
Full professor	57.4	97.3	–	–	–	1.2	36.1	39.5	20.5
Associate professor	53.0	111.7	–	–	–	17.5	53.8	31.1	9.3
Senior lecturer	49.0	85.7	–	0.8	8.1	20.3	41.0	10.6	4.8
Lecturer	43.4	46.4	–	3.3	15.2	12.6	12.1	2.9	0.3
Mathematics, statistics and computer sciences									
Total	47.8	340.6	1.1	25.6	59.9	50.2	124.2	74.6	5.1
Full professor	53.1	153.6	–	0.5	6.0	14.9	68.2	59.0	5.0
Associate professor	46.8	74.5	0.1	1.0	15.6	17.3	29.9	10.6	–
Senior lecturer	42.9	76.0	1.0	10.8	20.0	17.9	21.2	5.0	0.1
Lecturer	37.4	36.6	–	13.2	18.3	0.1	4.9	–	–

Table 6.11

Senior Academic Staff Financed from the Ordinary Budget by Mean Age, Age, Field of Study and Rank in Full-Time Equivalent Positions[1] 1992/93 (cont.)

Field of study and rank	Mean age	Age							
		Total	Under 30	30 - 34	35 - 39	40 - 44	45 - 54	55 - 64	65+
Physical sciences									
Total	52.0	525.8	–	16.7	57.0	51.5	180.7	185.6	34.3
Full professor	56.3	279.6	–	–	1.0	14.0	101.4	123.2	40.1
Associate professor	53.1	139.4	–	1.0	10.7	15.3	53.9	41.8	16.6
Senior lecturer	43.8	79.3	–	7.7	29.7	19.5	8.3	11.5	2.7
Lecturer	39.1	30.5	–	8.0	14.5	4.0	2.0	2.0	–
Biological sciences									
Total	52.1	363.0	–	5.0	24.6	54.8	141.0	111.1	26.6
Full professor	57.1	139.4	–	–	–	3.0	46.1	73.0	17.3
Associate professor	51.7	123.8	–	–	0.8	22.7	65.7	27.8	6.9
Senior lecturer	46.9	74.4	–	4.0	10.1	21.1	27.9	9.9	1.5
Lecturer	41.0	25.5	–	1.0	13.7	8.0	1.3	0.5	0.9
Agriculture									
Total	52.8	93.7	–	1.7	12.0	7.0	29.0	35.3	8.8
Full professor	58.9	40.2	–	–	–	–	8.7	24.7	6.8
Associate professor	53.4	20.3	–	–	–	1.2	12.1	6.1	1.0
Senior lecturer	49.6	17.1	–	–	2.0	2.8	8.2	4.0	–
Lecturer	40.4	16.2	–	1.7	10.0	3.0	–	0.5	1.0
Engineering and architecture									
Total	52.0	476.5	–	9.5	38.0	81.5	156.0	146.5	44.9
Full professor	57.9	166.1	–	–	–	5.0	42.3	94.7	24.0
Associate professor	53.1	153.9	–	1.0	2.0	21.7	73.8	35.5	19.9
Senior lecturer	46.7	107.7	–	1.6	14.3	41.4	35.1	14.3	1.0
Lecturer	40.3	48.9	–	6.9	21.7	13.5	4.8	2.0	–
Other									
Total	52.5	117.4	–	–	3.9	16.2	53.6	40.2	3.5
Full professor	56.0	23.5	–	–	–	1.7	7.1	13.5	1.2
Associate professor	54.8	31.6	–	–	–	–	17.0	14.0	0.6
Senior lecturer	50.3	37.2	–	–	0.9	7.9	20.5	7.6	0.3
Lecturer	49.5	25.1	–	–	3.0	6.6	9.1	5.0	1.5

Source: The Planning and Budgeting Committee.

1. For technical reasons, some of the figures in this table are slightly different than those appearing in Tables 6.3 and 6.6. See Technical Appendix.

Table 6.12

Senior Academic Staff Financed from the Ordinary Budget by Mean Age, Age and Institution in Full-Time Equivalent Positions[1] 1992/93

Field of study	Mean age	Age							
		Total	Under 30	30 - 34	35 - 39	40 - 44	45 - 54	55 - 64	65+
					Absolute numbers				
Total	51.5	4,210.9	1.6	102.3	351.1	589.0	1,641.9	1,249.6	275.5
Hebrew University	51.4	1,064.7	–	34.7	111.9	143.1	367.4	325.3	82.3
Technion	52.1	568.5	–	16.2	48.4	83.0	187.2	179.6	54.1
Tel-Aviv University	51.7	1,037.8	0.6	19.9	70.1	152.6	416.8	314.3	63.5
Bar-Ilan University	51.9	499.4	–	8.0	27.1	67.8	221.8	143.2	31.5
Haifa University	51.8	319.8	–	3.0	20.9	37.6	155.3	82.6	20.4
Ben-Gurion University of the Negev	51.1	451.7	–	8.3	42.8	57.4	193.3	130.6	19.3
Weizmann Institute of Science	49.4	269.1	1.0	12.2	29.9	47.4	100.1	74.1	4.5
					Percentages				
Total		100.0	–	2.4	8.3	14.0	39.0	29.7	6.5
Hebrew University		100.0	–	3.3	10.5	13.4	34.5	30.6	7.7
Technion		100.0	–	2.9	8.5	14.6	32.9	31.6	9.5
Tel-Aviv University		100.0	0.1	1.9	6.8	14.7	40.2	30.3	6.1
Bar-Ilan University		100.0	–	1.6	5.4	13.6	44.4	28.7	6.3
Haifa University		100.0	–	0.9	6.5	11.8	48.6	25.8	6.4
Ben-Gurion University of the Negev		100.0	–	1.8	9.5	12.7	42.8	28.9	4.3
Weizmann Institute of Science		100.0	0.4	4.5	11.1	17.6	37.2	27.5	1.7

Source: The Planning and Budgeting Committee.

1. For technical reasons, the figures for certain institutions in this table are slightly different than those appearing in Tables 6.3 and 6.6. See Technical Appendix.

Table 6.13

Women in the Senior Academic Staff of the Regular Budget of Universities by Rank and Field of Study in Full-Time Equivalent Positions and as a Percentage of Total Senior Academic Staff 1992/93

Field of study	Rank				
	Total	Full professor	Associate professor	Senior lecturer	Lecturer
			Absolute numbers		
Total	842	92	161	352	236
Humanities	412	23	63	199	127
Social sciences	121	8	15	52	46
Law	16	4	6	1	4
Medicine	105	15	25	39	26
Mathematics, stat. & comp. sc.	23	4	5	10	4
Physical sciences	32	8	15	6	3
Biological sciences	70	21	18	23	7
Agriculture	7	1	1	3	3
Engineering and architecture	37	6	12	12	7
Other	21	2	2	8	9
			Percentage of total staff in each cell		
Total	20.0	7.3	14.2	30.0	36.6
Humanities	33.9	11.4	23.1	40.5	50.4
Social sciences	18.4	5.9	8.1	27.1	30.4
Law	19.1	15.2	24.5	7.0	29.6
Medicine	30.8	15.7	22.1	45.1	56.6
Mathematics, stat. & comp. sc.	6.6	2.6	6.1	13.5	10.4
Physical sciences	6.1	2.9	10.9	7.2	10.5
Biological sciences	19.2	15.3	14.5	31.3	27.3
Agriculture	7.2	2.5	2.9	15.6	15.5
Engineering and architecture	7.7	3.4	7.9	11.0	14.6
Other	18.1	8.5	6.7	21.6	35.9

Source: The Planning and Budgeting Committee.

Table 6.14

Staff in the Open University and Other Institutions of Higher Education[1], by Institution and Type of Staff in Full-time Equivalent Positions 1984/85 - 1992/93

Year & type of staff	Institution				
	The Open University[2]	Bezalel - Academy of Arts and Design	The Rubin Academy of Music, Jerusalem	Jerusalem College of Technology	Shenkar - College of Textile Technology and Fashion
1984/85 - total	..	150	84	86	92
Thereof: Academic staff	..	72	67	46	40
Technical and administrative staff	..	78	17	40	52
1985/86 - total	..	147	84	91	90
Thereof: Academic staff	..	71	67	45	41
Technical and administrative staff	..	76	17	46	49
1986/87 - total	..	148	85	102	90
Thereof: Academic staff	..	76	68	49	43
Technical and administrative staff	..	72	17	53	47
1987/88 - total	367	136	84	99	74
Thereof: Academic staff	37	66	65	46	36
Technical and administrative staff	330	70	19	53	38
1988/89 - total	370	145	86	92	74
Thereof: Academic staff	36	73	65	44	37
Technical and administrative staff	334	72	21	48	37
1989/90 - total	375	148	90	90	75
Thereof: Academic staff	32	76	69	44	39
Technical and administrative staff	343	72	21	46	36
1990/91 - total	413	141	91	91	84
Thereof: Academic staff	36	68	70	44	40
Technical and administrative staff	377	73	21	47	44
1991/92 - total	424	143	97	91	84
Thereof: Academic staff	41	70	73	47	42
Technical and administrative staff	383	73	24	44	42
1992/93 - total	435	145	107	89	85
Thereof: Academic staff	40	75	81	47	43
Technical and administrative staff	395	70	26	42	42

Source: The Planning and Budgeting Committee.

1. Not included here are Ruppin College of Agriculture and the College of Management, Academic Studies, Tel-Aviv.
2. In the data on the Open University only senior academic staff are included in "academic staff". Other academic staff (141 full-time equivalent posts in 1990/91 and 146 in 1991/92) are included in "technical and administrative staff".

Chapter 7

Financial and Physical Data on Institutions of Higher Education

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Table 7.1

National Expenditure on Education and on Tertiary & Higher Education, by Type of Expenditure 1984/85 - 1990[1]

Type of expenditure	1984/85	1985/86	1986/87	1988/89§	1989/90	1990
	NIS millions at current prices					
National Expenditure on Education	981	2,683	3,852	6,158	7,453	8,770
Thereof:						
Current expenditure	898	2,470	3,557	5,637	6,870	8,095
Fixed capital formation	83	213	295	521	583	675
National Expenditure on Tertiary Education	232	673	912	1,320	1,593	1,848
Thereof:						
Current expenditure	207	592	826	1,215	1,467	1,678
Fixed capital formation	25	81	86	105	126	170
National Expenditure on Higher Education	..	..	..	..	..	1,566
Thereof:						
Current expenditure	..	..	..	..	..	1,428
Universities[2]	155	448	616	877	1,058	1,192
Teacher training colleges	..	..	..	..	..	136
Other institutions of higher education	..	..	..	..	..	100
Fixed capital formation	..	..	..	..	..	138
Universities[2]	..	..	..	..	..	122
Teacher training colleges	..	..	..	..	..	4
Other institutions of higher education	..	..	..	..	..	12
National Expenditure on Tertiary Education as a percentage of GNP	2.20	2.10	2.00	1.84	1.82	1.81
National Expenditure on Tertiary Education as a percentage of National Expenditure on Education	23.6	25.1	23.7	21.4	21.4	21.1
National Expenditure on Higher Education as a percentage of GNP	..	..	..	..	..	1.5
National Expenditure on Higher Education as a percentage of National Expenditure on Education	..	..	..	..	..	17.9
Current expenditure in universities[2] as a percentage of Current Expenditure on Education	17.3	18.1	17.3	15.6	15.4	14.7

1. Budget year from april through march. From 1990 the data refer to the calendar year.
2. Includes all universities, except the Weizmann Institute of Science, which, aside from the Feinberg Graduate School, is defined as a research institute. See Technical Appendix.

Table 7.2

The Ordinary Budget[1] of the Institutions of Higher Education Funded by the Planning and Budgeting Committee[2] by Source of Income 1987/88 - 1992/93 (NIS million)

	Total expenditures	Source of income					
		PBC participation					
		Total	Direct	Earmarked[3]	Donations	Tuition fees	Other income
				At current prices			
1987/88	935.9	914.3	434.9	87.7	81.3	139.0	171.4
1988/89	1,128.5	1,112.6	543.0	148.9	117.0	181.7	122.0
1989/90	1,325.9	1,313.2	625.7	131.7	139.9	250.8	165.1
1990/91	1,644.4	1,678.5	822.2	136.4	180.8	307.1	231.9
1991/92	1,965.3	2,039.6	997.3	206.4	190.0	402.6	243.4
1992/93[4]	2,302.1	2,404.6	1,221.9	318.1	203.8	498.1	162.7
				At 1992/93 prices[5]			
1987/88	2,046.9	1,930.5	1,009.8	164.9	140.4	293.0	322.3
1988/89	2,023.3	1,962.4	1,029.3	239.5	176.6	320.8	196.2
1989/90	2,113.8	2,055.7	1,057.4	190.9	191.7	376.3	239.3
1990/91	2,139.3	2,172.7	1,090.4	173.4	226.6	387.5	294.9
1991/92	2,268.0	2,349.9	1,170.7	237.3	218.0	443.8	279.9
1992/93[4]	2,302.1	2,404.6	1,221.9	318.1	203.8	498.1	162.7

Source: Planning and Budgeting Committee.

1. Actual expenditures and income.
2. The institutions included here appear in Table 7.3.
3. One-time payments are included here as earmarked funds (see Table 7.4). The figures also include research bonuses totalling NIS 6.3 million in 1987/88. These research bonuses were included in direct participation from 1988/89 onward.
4. The figures are from the updated and approved budget.
5. A specific price index was used to deflate total expenditures and each source of funding. Total income is the sum of the various sources of income in fixed prices.

Table 7.3

The Ordinary Budget[1] of the Institutions of Higher Education Funded by the Planning and Budgeting Committee[2] by Institution 1987/88 - 1992/93 (NIS million)

	At current prices				At 1992/93 prices[3]				
Institution	**1987/88**	**1989/90**	**1991/92**	**1992/93[4]**	**1987/88**	**1989/90**	**1991/92**	**1992/93[4]**	**Percent change 87/88 - 92/93**
Grand total	935.9	1,325.9	1,965.3	2,302.1	2,046.8	2,113.8	2,268.0	2,302.1	12.5
A. Universities - total	891.5	1,261.2	1,851.7	2,171.6	1,949.8	2,010.6	2,137.0	2,171.6	11.4
Hebrew University	230.5	340.6	487.3	552.3	504.2	543.0	562.4	552.3	9.5
Technion	148.9	203.5	310.5	350.3	325.6	324.4	358.3	350.3	7.6
Tel-Aviv University	202.2	280.4	413.5	485.8	442.2	447.1	477.2	485.8	9.9
Bar-Ilan University	75.2	104.4	161.2	200.9	164.4	166.4	186.1	200.9	22.2
Haifa University	47.6	64.3	98.9	135.1	104.1	102.4	114.1	135.1	29.8
Ben-Gurion University of the Negev	81.1	112.5	174.0	210.3	177.5	179.4	200.8	210.3	18.5
Weizmann Institute of Science	106.0	155.5	206.3	236.9	231.9	247.9	238.1	236.9	2.2
B. The Open University	21.2	34.2	66.8	79.3	46.3	54.5	77.1	79.3	71.2
C. Other institutions of higher education - total	23.2	30.5	46.8	51.3	50.7	48.7	54.0	51.3	1.1
Bezalel - Academy of Art & Design	7.8	10.5	14.8	17.2	17.1	16.8	17.1	17.2	0.6
Jerusalem Rubin Academy of Music and Dance	4.0	5.9	9.4	10.9	8.6	9.4	10.9	10.9	26.2
Jerusalem College of Technology	7.5	8.5	14.1	13.4	16.3	13.6	16.2	13.4	(17.7)
Shenkar - College of Textile Technology and Fashion	4.0	5.6	8.4	9.7	8.7	8.9	9.7	9.7	12.1

Source: Planning and Budgeting Committee.

1. Actual expenditures.
2. Not including The Ruppin Institute of Agriculture.
3. The figures were deflated by the higher education expenditures price index. See the Technical Appendix.
4. The figures are from the updated and approved budget.

Table 7.4

Income from the PBC and Tuition Fees in the Ordinary Budget of the Institutions of Higher Education Funded by the PBC[1] 1982/83 - 1992/93 (NIS millions)

	Grand total	PBC participation				Tuition fees
		Total	Direct	Earmarked[2]	One-time payments	
			At current prices			
1982/83[3]	15.9	14.5	13.3	1.2	..	1.4
1983/84	44.8	40.8	36.6	4.2	–	4.0
1984/85	205.1	173.1	153.0	20.1	–	32.0
1985/86	415.6	309.0	252.2	56.8	–	106.6
1986/87	536.1	415.9	324.2	70.1	21.6	120.2
1987/88	661.6	522.6	434.9	87.7	–	139.0
1988/89	873.6	691.9	543.0	90.3	58.6	181.7
1989/90	1,008.2	757.4	625.7	116.5	15.2	250.8
1990/91	1,265.8	958.6	822.2	128.6	7.8	307.1
1991/92	1,606.2	997.3	997.3	162.2	44.2	402.6
1992/93[4]	2,038.1	1,221.9	1,221.9	215.9	102.3	498.1
			At 1992/93 prices[5]			
1982/83[3]	1,406.8	1,258.9	1,175.0	83.9	..	147.9
1983/84	1,095.6	988.0	914.7	73.3	–	107.6
1984/85	1,144.3	971.1	901.0	70.1	–	173.2
1985/86	1,320.9	1,006.7	882.8	123.9	–	314.3
1986/87	1,417.1	1,122.8	939.3	140.3	43.2	294.3
1987/88	1,467.8	1,174.8	1,009.8	164.9	–	293.0
1988/89	1,589.5	1,268.7	1,029.3	145.2	94.2	320.8
1989/90	1,624.6	1,248.3	1,057.4	168.9	22.0	376.3
1990/91	1,651.2	1,263.7	1,090.4	163.5	9.9	387.5
1991/92	1,851.9	1,408.0	1,170.7	186.6	50.8	443.8
1992/93[4]	2,038.1	1,221.9	1,221.9	215.9	102.3	498.1

Source: Planning and Budgeting Committee.

1. The institutions included here appear in Table 7.3.
2. Includes research bonus income amounting to NIS 6.3 million in 1987/88. This type of income was included in the direct participation component of of PBC allocations from 1988/89 onward.
3. PBC participation in this year include significant retroactive and one-time payments, relating primarily to salary agreements and the " Rieger Arbitration ".
4. The figures are from the updated and approved budget.
5. See Technical Appendix for detailed explanation.

Table 7.5.a

The Ordinary Budget[1] of the Institutions of Higher Education Funded by the Planning and Budgeting Committee[2] by Source of Income and Institution 1991/92
(NIS thousands at current prices)

Institution	Total expenditures	Source of income					
		Total	PBC participation		Donations	Tuition fees	Other income
			Direct	Earmarked[3]			
Grand total	1,965,285	2,039,634	997,279	206,365	189,993	402,577	243,420
A. Universities - total	1,851,746	1,923,151	956,979	198,262	184,195	350,431	233,284
Hebrew University	487,312	492,402	251,710	59,816	77,538	75,275	28,063
Technion	310,463	310,463	182,489	29,686	31,067	42,741	24,480
Tel-Aviv University	413,510	447,445	210,678	36,997	10,432	109,329	80,009
Bar-Ilan University	161,244	164,961	89,608	14,456	782	50,919	9,196
Haifa University	98,870	109,050	44,696	9,928	1,184	38,284	14,958
Ben-Gurion University of the Negev	174,010	185,450	94,018	23,384	8,450	33,883	25,715
Weizmann Institute of Science	206,337	213,380	83,780	23,995	54,742	–	50,863
B. The Open University	66,775	67,943	13,690	7,464	1,604	41,530	3,655
C. Other institutions of higher education - total	46,764	48,540	26,610	639	4,194	10,616	6,481
Bezalel - Academy of Art & Design	14,833	15,793	9,010	187	1,301	3,862	1,433
Jerusalem Rubin Academy of Music and Dance	9,439	10,274	5,620	183	343	2,891	1,237
Jerusalem College of Technology	14,053	14,032	5,890	207	2,367	2,203	3,365
Shenkar - College of Textile Technology and Fashion	8,439	8,441	6,090	62	183	1,660	446

Source: Planning and Budgeting Committee.

1. Actual expenditures and income.
2. Not including The Ruppin Institute of Agriculture. PBC support for the Ruppin Institute amounted to NIS 319,000 in 1991/92.
3. Including one-time payments totalling NIS 44.2 million.

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Table 7.5.b

The Ordinary Budget[1] of the Institutions of Higher Education Funded by the Planning and Budgeting Committee[2] by Source of Income and Institution 1992/93
(NIS thousands at current prices)

Institution	Total expenditures	Source of income					
		Total	PBC participation		Donations	Tuition fees	Other income
			Direct	Earmarked[3]			
Grand total	2,302,070	2,404,600	1,221,940	318,119	203,770	498,085	162,686
A. Universities - total	2,171,550	2,274,080	1,174,830	309,047	199,300	432,580	158,323
Hebrew University	552,290	586,090	305,200	89,641	89,100	93,080	9,069
Technion	350,260	351,840	218,670	24,303	32,100	46,250	30,517
Tel-Aviv University	485,780	516,450	259,630	62,421	12,200	138,690	43,509
Bar-Ilan University	200,920	214,540	109,510	25,314	2,600	61,400	15,716
Haifa University	135,120	135,710	60,490	10,533	1,600	49,200	13,887
Ben-Gurion University of the Negev	210,260	223,880	119,220	30,659	11,100	43,960	18,941
Weizmann Institute of Science	236,920	245,570	102,110	66,176	50,600	–	26,684
B. The Open University	79,270	79,270	16,120	8,313	1,120	52,125	1,592
C. Other institutions of higher education - total	51,250	51,250	30,990	759	3,350	13,380	2,771
Bezalel - Academy of Art & Design	17,190	17,190	10,750	190	990	5,000	260
Jerusalem Rubin Academy of Music and Dance	10,920	10,920	6,410	195	280	3,615	420
Jerusalem College of Technology	13,420	13,420	6,820	308	1,900	2,620	1,772
Shenkar - College of Textile Technology and Fashion	9,720	9,720	7,010	66	180	2,145	319

Source: Planning and Budgeting Committee.

1. The figures are from the updated and approved budget.
2. Not including The Ruppin Institute of Agriculture. PBC support for the Ruppin Institute amounted to NIS 360,000 in 1991/92.
3. Including one-time payments totalling NIS 102.3 million.

Table 7.6

Tuition Fees in Universities[1] 1975/76 - 1993/94

	Tuition fees		
	NIS, at current prices	NIS, at july 1993 prices	Real annual rate of growth[2]
1975/76	0.27	2,833	..
1976/77	0.49	3,735	31.8
1977/78	0.54	3,051	-18.3
1978/79	0.76	2,874	-5.8
1979/80	1.14	2,240	-22.1
1980/81	2.41	2,054	-8.3
1981/82	5.02	1,998	-2.7
1982/83	18.20	3,142	57.2
1983/84	41.23	2,945	-6.3
1984/85[3]	298	5,805	97.1
1985/86[3]	1,673	5,985	3.1
1986/87[3]	2,073	5,985	–
1987/88	2,156	5,197	-13.2
1988/89	2,500	5,197	–
1989/90	3,290	5,671	9.1
1990/91	3,866	5,671	–
1991/92	4,677	5,671	–
1992/93	5,180	5,729	1.0
1993/94	5,843	5,843	2.0

Source: Planning and Budgeting Committee.

1. Since 1982/83 tuition fees are linked to the consumer price index during the academic year. The data in the table were calculated according to the index for the july preceeding the academic year.
2. According to the Consumer Price Index.
3. In the academic years 1984/85 - 1986/87 tuition fees at the universities include a temporary "tuition levy".

Table 7.7

The Development Budget[1] of the Institutions of Higher Education Funded by the Planning and Budgeting Committee 1973/74 - 1992/93 (NIS thousands)

	Type of institution							
	Universities[2]		Other institutions of higher education		Universities[2]		Other institutions of higher education	
	Actual investments	PBC participation	Actual investments	PBC participation	Actual investments	PBC participation	Actual investments	PBC participation
	At current prices				At 1991/92 prices[3]			
1973/74	26	13	..	–	347,247	173,623	..	–
1974/75	31	14	..	–	306,360	138,009	..	–
1975/76	29	9	..	–	222,804	68,014	..	–
1976/77	32	13	..	–	193,827	77,774	..	–
1977/78	51	17	..	–	202,582	66,728	..	–
1978/79	76	17	..	–	174,298	39,142	..	–
1979/80	161	45	..	–	166,202	45,824	..	–
1980/81	381	84	3	2	164,723	36,446	1,124	778
1981/82	735	181	42	43	149,735	36,833	8,642	8,704
1982/83	1,725	337	63	51	156,652	30,622	5,723	4,596
1983/84	5,583	1,358	1,067	106	126,611	30,803	24,197	2,393
1984/85	25,074	4,992	2,697	900	129,561	25,794	13,938	4,650
1985/86	40,770	9,407	3,581	152	123,262	28,439	10,825	460
1986/87	50,530	7,971	2,993	279	121,104	19,104	7,172	669
1987/88	54,670	4,440	4,374	2,560	107,668	8,744	8,614	5,042
1988/89	43,420	5,460	12,110	4,240	72,438	9,109	20,203	7,074
1989/90§	74,310	7,620	15,290	5,780	106,115	10,881	21,834	8,254
1990/91	97,670	39,570	4,430	430	119,195	48,290	5,406	525
1991/92	119,550	40,400	–	–	129,740	43,844	–	–
1992/93	123,650	49,800	1,240	700	123,650	49,800	1,240	700

Source: The Planning and Budgeting Committee.

1. The development budget refers to earmarked funds actually expended for specified construction projects and investments in general physical infrastructure. See the technical appendix for a more detailed explanation.
2. Including the Open University of Israel.
3. Based on the Building Inputs Price Index.

Table 7.8

The Development Budget[1] of the Universities and the Open University by Institution 1989/90 - 1992/93 (NIS thousands)

Institution	1989/90		1990/91		1991/92		1992/93	
	Actual investments	PBC participation	Actual investments	PBC participation	Actual investments	PBC participation	Actual investments	PBC participation
				At nominal prices				
Total	74,310	7,620	97,670	39,570	119,550	40,400	123,650	49,800
Hebrew University	4,490	–	8,940	5,000	11,170	–	14,680	10,000
Technion	13,200	–	14,300	2,500	16,200	1,000	17,800	6,800
Tel-Aviv University	14,470	–	17,430	3,940	25,720	4,500	30,210	11,600
Bar-Ilan University	4,620	1,090	6,860	3,190	11,030	2,400	11,870	6,100
Haifa University	1,280	365	3,510	3,070	5,760	3,800	8,280	4,800
Ben-Gurion University of the Negev	16,540	6,165	22,230	21,870	26,860	28,700	20,470	6,200
Weizmann Institute of Science	19,420	–	23,440	–	22,280	–	19,870	4,300
Open University of Israel	290	–	960	–	530	–	470	–
				At 1992/93 prices[2]				
Total	106,115	10,881	119,195	48,290	129,740	43,844	123,650	49,800
Hebrew University	6,412	–	10,910	6,102	12,122	–	14,680	10,000
Technion	18,850	–	17,451	3,051	17,581	1,085	17,800	6,800
Tel-Aviv University	20,663	–	21,271	4,808	27,912	4,884	30,210	11,600
Bar-Ilan University	6,597	1,557	8,372	3,893	11,970	2,605	11,870	6,100
Haifa University	1,828	521	4,284	3,747	6,251	4,124	8,280	4,800
Ben-Gurion University of the Negev	23,619	8,804	27,129	26,690	29,150	31,146	20,470	6,200
Weizmann Institute of Science	27,732	–	28,606	–	24,179	–	19,870	4,300
Open University of Israel	414	–	1,172	–	575	–	470	–

Source: The Planning and Budgeting Committee.

1. See footnote 1 to Table 7.7.
2. Based on the Building Inputs Price Index.

Table 7.9

Built-Up Areas in Universities, by Institution and Use 1992/93-93/94 (Gross area in square meters)

Institution	Total area of buildings[1]	Use							
		Teaching and research						Services	
		Total	Common services[2]	Humanities and social sciences	Natural sciences	Medicine	Technology	Student and staff services[3]	Student dormitories[4]
Total	1,485,400	1,125,400	183,500	313,900	346,100	122 500	159,400	96,400	263,600
Hebrew University	460,200	317,200	51,500	100,200	115,100	50,400	–	39,300	103,700
Technion	313,100	229,600	38,700	3,200	40,500	29,200	118,000	17,400	66,100
Tel-Aviv University	254,300	215,600	16,100	88,300	53,800	34,300	23,100	11,000	27,700
Bar-Ilan University	113,400	86,700	27,000	42,700	17,000	–	–	7,900	18,800
Haifa University	82,800	68,400	[5]..	68,400	[5]..	–	–	4,900	9,500
Ben-Gurion University of the Negev	151,400	107,400	39,200	11,100	30,200	8,600	18,300	12,200	31,800
Weizmann Institute of Science	110,200	100,500	11,000	–	89,500	–	–	3,700[6]	6,000

Source: Planning and Budgeting Committee.

1. Excluding undergound areas for parking, pipes, etc.
2. Including buildings whose primary function is to serve as a central library, central auditorium, central administration, etc.
3. Including central mensa, sports facilities, health services, etc.
4. Student (including Ph.D. students) housing only.
5. Additional area included elsewhere.
6. Excluding housing for visiting staff (9,600 sq. m.) and permanent academic staff.

Chapter 8

Inputs and Outputs of University Research

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Table 8.1

Gross National Expenditure on Civilian Research and Development by Sector of Performance 1989 - 1992
(Million current NIS, percentages and as a percent of GDP)

	Sector of performance				
	Total	Industry	Government	Universities[1]	Private non-profit
			Million current NIS		
1989	1,994	934	260	636	164
1990	2,376	1,095	293	790	198
1991	2,969	1,399	368	965	237
1992[2]	3,627	1,694	430	1,219	284
			Percentages		
1989	100.0	46.8	13.0	31.9	8.2
1990	100.0	46.1	12.3	33.2	8.3
1991	100.0	47.1	12.4	32.5	8.0
1992[2]	100.0	46.7	11.9	33.6	7.8
			Percent of GDP		
1989	2.35	1.10	0.31	0.75	0.19
1990	2.30	1.06	0.28	0.76	0.19
1991	2.19	1.03	0.27	0.71	0.17
1992[2]	2.25	1.05	0.27	0.76	0.18

1. Including the Weizmann Institute of Science.
2. Preliminary estimate.

Table 8.2

Expenditures on Specially Funded Research Projects in Universities by Scientific Field 1984/85 - 1990/91 (Million current NIS and percentages)

Scientific field	1984/85	1986/87	1988/89	1990/91
		Million current NIS		
Total	65.2	136.3	186.0	274.2
Humanities[1]	4.2	6.9	5.4	17.1
Education	2.6	7.0	11.7	18.3
Social sciences	2.5	5.2	6.7	12.1
Medicine	9.1	21.7	24.4	38.1
Mathematics, stat. & comp. sc.	1.5	3.5	4.5	8.0
Physical sciences	13.9	30.3	50.8	66.6
Biological sciences	16.6	35.6	52.6	67.8
Agriculture	3.5	7.0	7.1	10.2
Engineering and architecture	11.1	19.2	22.9	36.0
		Percentages		
Total	100.0	100.0	100.0	100.0
Humanities[1]	6.5	5.1	2.9	6.2
Education	4.0	5.1	6.3	6.7
Social sciences	3.9	3.8	3.6	4.4
Medicine	14.0	15.9	13.1	13.9
Mathematics, stat. & comp. sc.	2.3	2.6	2.4	2.9
Physical sciences	21.4	22.2	27.3	24.3
Biological sciences	25.5	26.1	28.3	24.7
Agriculture	5.3	5.1	3.8	3.7
Engineering and architecture	17.1	14.1	12.3	13.1

1. Includes law but excludes education.

Table 8.3

Expenditures on Specially Funded Research Projects in Universities by Institution and Scientific Field 1990/91 (Million NIS and percentages)

Scientific field	Total	Hebrew Univ.	Technion	Tel-Aviv Univ.	Bar-Ilan Univ.	Haifa Univ.	Ben-Gurion Univ. of the Negev	Weizmann Institute of Science
				Institution				
				Million NIS at current prices				
Total	274.2	88.8	42.0	42.3	10.8	1.6	28.1	60.5
Humanities[1]	17.1	12.3	–	3.1	0.6	0.1	1.0	–
Education	18.3	6.3	3.3	4.4	0.4	0.3	1.5	2.1
Social sciences	12.1	7.0	–	1.3	2.2	1.1	0.5	–
Medicine	38.1	22.3	3.1	7.3	–	–	5.4	–
Mathematics, stat. & comp. sc.	8.0	2.1	0.7	1.6	0.6	–	0.8	2.2
Physical sciences	66.6	15.4	5.8	10.0	3.5	0.1	13.5	18.3
Biological sciences	67.8	13.3	1.3	10.6	3.6	–	1.0	38.0
Agriculture	10.2	10.2	–	–	–	–	–	–
Engineering and architecture	36.0	–	27.8	4.0	–	–	4.3	–
				Percentages				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities[1]	6.2	13.8	–	7.2	5.4	8.1	3.6	–
Education	6.7	7.1	7.7	10.4	3.5	22.1	5.4	3.4
Social sciences	4.4	7.9	–	3.1	20.1	66.4	1.9	–
Medicine	13.9	25.1	7.4	17.2	–	–	19.1	–
Mathematics, stat. & comp. sc.	2.9	2.4	1.6	3.9	5.6	–	3.0	3.6
Physical sciences	24.3	17.3	13.9	23.7	32.4	3.3	48.0	30.3
Biological sciences	24.7	14.9	3.2	25.1	33.0	–	3.5	62.8
Agriculture	3.7	11.5	–	–	–	–	–	–
Engineering and architecture	13.1	–	66.1	9.3	–	–	15.4	–
Total	100.0	32.4	15.3	15.4	4.0	0.6	10.3	22.1
Humanities[1]	100.0	72.0	–	17.9	3.4	0.8	5.9	–
Education	100.0	34.4	17.8	24.2	2.1	1.9	8.3	11.3
Social sciences	100.0	57.9	–	10.9	18.0	8.7	4.5	–
Medicine	100.0	58.6	8.2	19.1	–	–	14.1	–
Mathematics, stat. & comp. sc.	100.0	26.3	8.2	20.5	7.6	–	10.4	27.0
Physical sciences	100.0	23.1	8.8	15.0	5.3	0.1	20.3	27.5
Biological sciences	100.0	19.6	2.0	15.7	5.3	–	1.5	56.0
Agriculture	100.0	100.0	–	–	–	–	–	–
Engineering and architecture	100.0	–	77.0	11.0	–	–	12.0	–

1. Includes law but excludes education.

Table 8.4

Expenditures on Specially Funded Research Projects in Universities by Source of Funding and Scientific Field 1990/91 (Percentages)

Scientific field	Source of funding					
	Grand total	Israeli sources				Foreign sources
		Total	University	Public	Private	
Total	100.0	58.6	8.7	43.3	6.6	41.4
Humanities[1]	100.0	61.8	33.1	21.9	6.9	38.2
Education	100.0	85.7	1.4	82.9	1.4	14.3
Social sciences	100.0	80.9	34.5	41.6	4.9	19.1
Medicine	100.0	48.5	11.6	30.9	6.0	51.5
Mathematics, stat. & comp. sc.	100.0	69.4	4.2	57.3	7.9	30.6
Physical sciences	100.0	59.0	3.5	49.5	6.0	41.0
Biological sciences	100.0	39.1	4.4	25.3	9.4	60.9
Agriculture	100.0	71.9	25.0	42.3	4.5	28.1
Engineering and architecture	100.0	76.8	1.2	69.4	6.2	23.2

1. Includes law but excludes education.

Table 8.5

Scientific Publications of Israeli Researchers as a Percentage of World Scientific Publications in the Natural Sciences, Medicine and Technology by Scientific Field[1] 1981 - 1991

Scientific field	1981	1983	1985	1987	1989	1991
Total	1.0	1.1	1.1	1.1	1.0	0.9
Clinical medicine	1.1	1.2	1.3	1.3	1.2	1.1
Biomedical research	1.0	1.1	1.0	0.9	0.9	0.8
Biology	1.1	1.1	1.2	1.2	1.2	1.1
Chemistry	0.6	0.6	0.7	0.6	0.6	0.5
Physics	1.1	1.1	1.0	1.0	1.0	0.9
Earth & space sciences	0.8	0.8	0.8	0.9	0.8	0.8
Engineering & technology	1.0	0.9	1.2	1.0	1.0	0.8
Mathematics	1.5	2.0	1.6	1.8	1.5	1.4

Source: National Science Board, *Science & Engineering Indicators - 1993*, Washington DC, U.S. Government Printing Office, 1993,(NSB 93-1), p. 424.

1. See Technical Appendix for an explanation of this table.

Table 8.6

Scientific Publications of Researchers in Israeli Universities by Institution and Scientific Field 1992 (Absolute numbers and percentages)

Scientific field	Total	Institution						
		Hebrew Univ.	Technion	Tel-Aviv Univ.	Bar-Ilan Univ.	Haifa Univ.	Ben-Gurion Univ. of the Negev	Weizmann Institute of Science
				Absolute numbers				
Humanities[1]	409	148	1	116	63	54	28	–
Education	211	31	11	38	40	67	14	10
Social science	543	158	–	152	114	77	42	–
Medicine	928	304	138	370	–	–	116	–
Mathematics[2]	191	35	52	51	7	10	8	29
Physical sciences	784	183	137	160	55	–	73	176
Life sciences	664	193	14	114	42	9	34	258
Engineering	358	–	210	70	–	–	78	–
				Percentages				
Humanities[1]	100.0	36.1	0.2	28.4	15.3	13.2	6.8	–
Education	100.0	14.6	5.4	17.9	18.9	31.9	6.6	4.7
Social science	100.0	29.0	–	28.0	21.0	14.3	7.7	–
Medicine	100.0	32.7	14.9	39.9	–	–	12.5	–
Mathematics[2]	100.0	18.4	27.3	26.4	3.4	5.1	4.4	14.9
Physical sciences	100.0	23.3	17.5	20.4	7.0	–	9.3	22.4
Life sciences	100.0	29.0	2.2	17.2	6.3	1.4	5.1	38.8
Engineering	100.0	–	58.6	19.7	–	–	21.7	–

Source: Information Retrieval Center for Research in the Social Sciences, The Henrietta Szold Institute, The National Institute for Research in the Behavioral Sciences. See the Technical Appendix.

1. Includes law but excludes education.
2. Includes statistics and computer science.

Chapter 9

Israeli Students and Degree Recipients Abroad

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Table 9.1

Israeli Students in Tertiary Level Institutions Abroad by Region and Selected Countries of the Host Institution 1974 - 1991

Region & country	1974	1979	1985	1987	1989	1990	1991
Grand total	5,173	5,584	6,211	7,280	7,838	8,505	8,690
North America - total	2,581	2,870	2,713	3,086	3,023	3,089	3,281
Of these: USA	2,390	2,730	2,630	2,986	2,913	2,977	3,127
Western Europe - total	2,447	2,650	2,486	2,603	3,157	3,438	3,515
Of these: Italy	1,176	1,282	1,163	959	1,005	1,021	984
United kingdom	215	212	142	282	595	796	866
Germany	337	416	662	818	990	1,047	1,106
France	421	355	217	222	230	249	223
Eastern Europe - total	107	58	909	1,454	1,519	1,808	1,716
Rest of world - total	38	6	103	138	139	170	178

Source: *UNESCO Statistical Yearbook*, UNESCO, Paris, Various editions, and supplementary data from several national sources. See Technical Appendix.

Table 9.2

Israeli Students in Tertiary Level Institutions in the United States by Level of Degree and Field of Study[1] 1985/86, 1991/92

	1985/86		1991/92	
Level of degree & field of study	**number**	**percent**	**number**	**percent**
Level of degree				
Total	2,630	100.0	3,127	100.0
Associate	424	16.1	402	12.9
Bachelor	863	32.8	1,196	38.2
of these: Freshman	267	10.2	384	12.3
Master	632	24.0	581	18.6
Doctorate	540	20.5	831	26.6
Other	171	6.5	117	3.8
Field of study				
Total	2,630	100.0	3,127	100.0
Humanities	556	21.1	574	18.4
Social sciences	394	15.0	512	16.4
Business & management	311	11.8	477	15.2
Medicine & para-medicine	143	5.4	156	5.0
Mathematics & comp. sci.	275	10.5	284	9.1
Natural sciences	168	6.4	226	7.2
Engineering	626	23.8	736	23.5
Other[2]	156	5.9	163	5.2

Source: Institute of International Education, *Profiles 1985/86*, New York, 1987; and *Profiles 1991/92*, 1993.

1. The breakdowns by level of degree and field are based on detailed information on approximately two-thirds of the Israeli students identified as studying in american institutions.
2. Includes law, agriculture, multi-disciplinary studies and intensive english.

Table 9.3

Israeli Citizens that Received Doctorates from US Universities, by Field of Study and Type of Visa 1970 - 1992

Field of study and type of visa	1970-1974[1]	1975-1979[1]	1980-1984[1]	1985-1989[1]	1990	1991	1992
Field of study							
Total	121	121	121	95	113	115	117
Social sciences	37	30	31	20	22	29	29
Mathematics & comp. sci.	6	9	12	11	17	11	19
Physical sciences	11	13	8	9	7	13	6
Life sciences	14	8	6	7	9	8	6
Engineering	20	27	29	21	19	27	25
Other[2]	33	34	35	27	39	27	32
Type of visa[3]							
Permanent visa	..	..	16	16	10	18	15
Temporary visa	..	..	71	52	64	70	70

Source: National Science Foundation, *Science and Engineering Doctorates: 1960 - 1991*, Washington DC, 1993, (NSF 93-301). *Selected Data on Science & Engineering Awards: 1992*, National Science Foundation, Washington DC, 1993, (NSF 93-915). and a direct correspondence from the U.S. National Research Council.

1. The figures are averages over the entire period.
2. Includes the humanities and profesional fields such as education, law, business & management and medicine.
3. Doctorate recipients classified above as "other" are not included here.

Appendix A

The Higher Education System in Israel - A Brief Outline

This appendix has been added to the English version of the Statistical Abstract for the benefit of the foreign reader who may not be familiar with the system of higher education in Israel. The table of relevant basic figures and the diagram of Israel's education system appearing at the end of this appendix are meant to facilitate an understanding of the national context in which Israel's higher education system operates.

Tertiary-level education in Israel is designated as either post-secondary education or higher education. The post-secondary education system in Israel is composed of various types of vocational institutions, the majority of which are under the supervision of the Ministries of Education and Culture, Labor and Social Affairs and Health. Included here are institutions such as teacher-training colleges, technical and technological colleges and schools, schools of law and management and para-medical schools. The duration of studies is one, two or three years depending on the type of institution and course of study. Post-secondary education does not lead to an academic degree.

The system of higher education in Israel is defined in the Law of Higher Education (1958). It is under the direct jurisdiction of the Council for Higher Education, which is responsible for accrediting and authorizing institutions of higher education to award degrees. This jurisdiction is a major distinguishing feature of the higher education system from the post-secondary education system.

The higher education system comprises universities, non-university institutions of higher education that provide instruction in specific fields, such as business administration, technology, arts and crafts and teacher training, at the bachelor's degree level only; and regional colleges that offer academic courses under the auspices and academic responsibility of the universities. A recent feature of the higher education system in Israel is the establishment of general colleges providing a broad spectrum of degree programs at the undergraduate level. These colleges are being established to meet the increasing demand for higher education that is expected to continue into the first decade of the 21st century. A list of accredited institutions of higher education appears at the beginning of appendix B.

By law the institutions of higher education are autonomous in the conduct of their academic and administrative affairs within the framework of their approved budgets and their terms of accreditation.

Research is an important component of university activities, usually considered to be equal to the teaching component. Virtually all of the basic research in the country and most of the research in the humanities and social sciences are performed in the universities. In non-university institutions of higher education stress is placed on teaching, while research plays at best only a marginal role in their activities.

The following universities are engaged in both teaching and research: the Hebrew-University, the Technion — Israel Institute of Technology, Tel Aviv University, Bar-Ilan University, the University of Haifa, Ben-Gurion University of the Negev and the Weizmann Institute of Science (a research institute that offers post-graduate programs). These institutions provide undegraduate and post-graduate programs in the humanities, natural sciences and social sciences. Some have programs in law, medicine, dental medicine, pharmacy, para-medicine, agriculture, applied sciences, engineering and architecture. The Open University of Israel offers undergraduate courses in the humanities, social sciences and natural sciences and is based on distance teaching.

The duration of studies for a bachelor's degree in universities is three years in most cases. However in certain fields such as engineering the duration of study extends to up to four years and in the case of architecture, five years. For non-university institutions of higher education the duration of studies is generally four years although in recent years academic programs of varying duration (3 years and above) have been intoduced.

Higher Education in Israel usually follows 12 years of primary and secondary education. A precondition is possession of the Israeli matriculation certificate (bagrut) or its equivalent. Some fields of study require certain minimum grades in matriculation examinations. Most institutions require candidates to submit psychometric entrance examination scores. The only requirement of the Open University is that applicants be capable of academic study.

Pre-academic preparatory programs have been set up in universities, teacher training colleges and regional colleges to provide a second chance to enter higher education to individuals who did not

obtain a matriculation certificate at the culmination of their secondary level education or who want to improve their chances of being accepted in an institution of higher education. The duration of the programs provided by universities is one year (except for special cases) while programs administered by regional colleges and teacher training colleges can run for as long as two and in some cases three years.

The licensing and accrediting authority for higher education is the Council for Higher Education, an independent statutory body whose chairman is, ex-officio, the Minister of Education and Culture. In addition to the chairman, the Council is composed of 19-24 members personally appointed by the President of the State of Israel, on the recommendation of the government. At least two thirds of the members must be academics of standing. The Council has the sole power to accredit institutions of higher education and to authorize them to award academic degrees.

The Council is empowered by law to advise the government on the development and financing of higher education and scientific research. To this end, it has established a permanent subcommittee, the Planning and Budgeting Committee (PBC) which is based on the model of the former University Grants Committee of the United Kingdom. The main functions of the PBC are as follows:

— to submit to the government the ordinary and development budgets for higher education, taking into account the needs of society and the state, while safeguarding the academic freedom and viability of the institutions of higher education;

— to have exclusive authority to allocate to the institutions of higher education the global approved ordinary and development budgets provided by the government;

— to propose to the government and the Council for Higher Education plans for the development of higher education, including its financing;

— to express its opinion on all matters concerning higher education;

— to encourage efficiency in the institutions of higher education and to coordinate between them;

— to ensure that the budgets of the institutions are balanced.

Through its global and earmarked funding programs, the PBC funds about 60% of the total ordinary budgets of the institutions of higher education that it supports. Tuition and student fees cover about 20% and the remainder is derived from contributions and other sources. The PBC funds all institutions of higher education except for teacher training colleges, which are funded and supervised by the Ministry of Education and Culture, and the academic programs of the College of Management, Tel Aviv, which is funded entirely from non-public funds.

Basic Figures on Israel

	Unit	Year	Value	Annual growth rate over last 5 years
Population	1,000 persons	1993	5,261.4	3.4%
Population aged 20-29	1,000 persons	1993	822.9	3.7%
Percent of population under 25	%	1993	47.7%	–0.7%
Population density[1]	persons per sq.km.	1993	242.4	3.4%
Gross domestic product (GDP)	million $[2]	1993	65,050	4.6%
GDP per capita	$[2]	1993	12,400	1.2%
Industrial exports (excluding diamonds)	million $[3]	1992	10,200	5.3%
Civilian labor force	1,000 persons	1993	1,946.1	4.6%
Percent women	%	1993	42.0%	1.2%
Percent with 16+ years of schooling	%	1993	17.1%	2.2%
Employed persons	1,000 persons	1993	1,751.1	3.8%
Percent scientific & academic workers	%	1991	9.1%	0.9%
Percent other professional, technical & related workers	%	1991	15.8%	0.3%
National expenditure on education as percent of GNP	%	1993	8.9%	0.7%
Pupils & students in education system	1,000 persons	1993/94	1,654.2	2.5%
Pupils in post-secondary institutions	1,000 persons	1993/94	41.9	10.9%

Source: *Statistical Abstract of Israel 1994*, and other publication of the Central Bureau of Statistics.

1. The figure for population density relates to population at the end of the year. The other figures on population relate to average population over the year.
2. At 1993 prices and exchange rates.
3. At 1992 prices and exchange rates.

Notes to the Diagram of the Education System of Israel

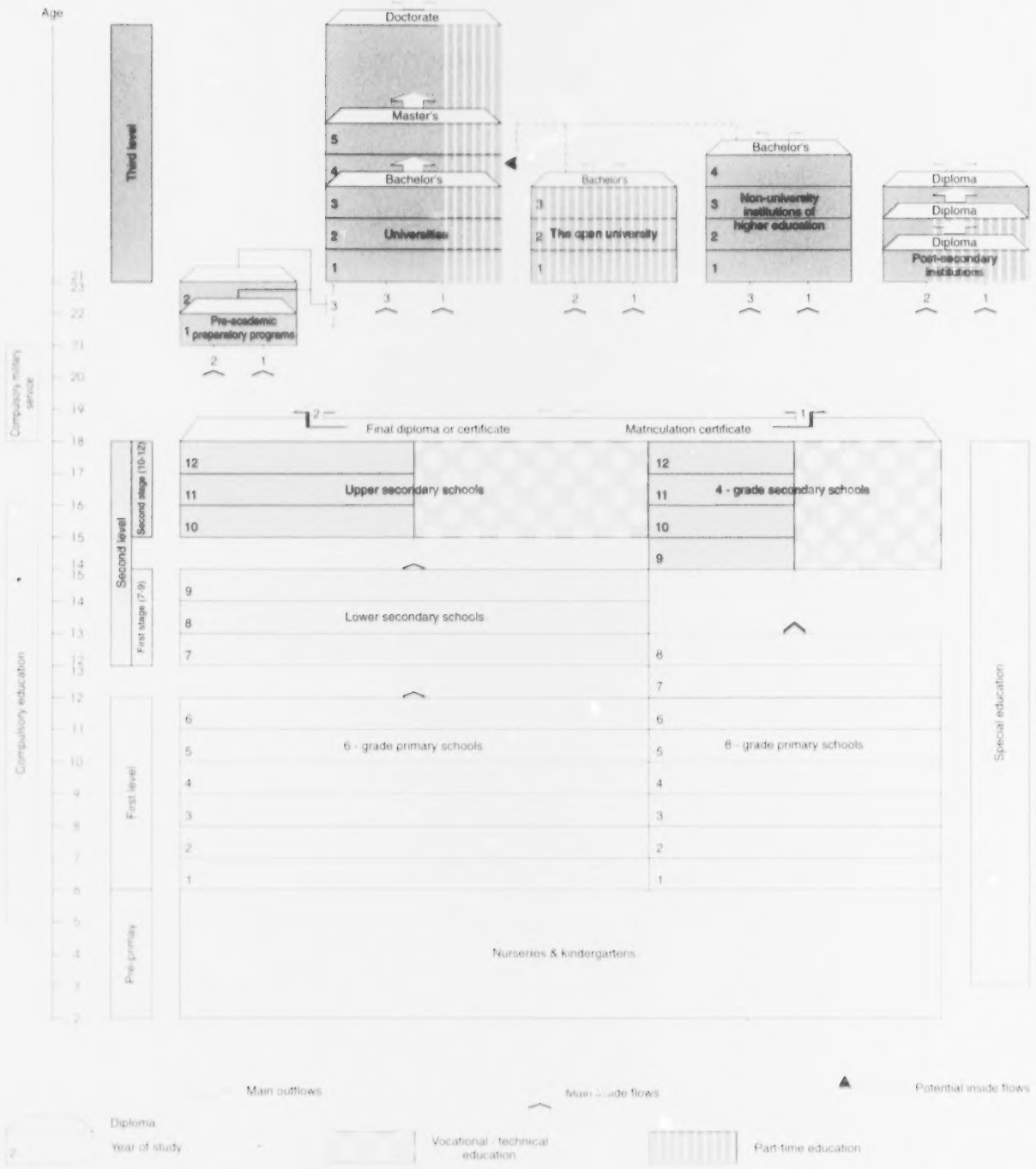
The diagram of the Education System of Israel on the following page is meant to give an outline of the structure of the regual education system in Israel. Only the most common types of education at the primary and secondary level under the auspices of the Ministry of Education and Culture are indicated. Similarly only the most common internal flows and outflows at these levels are shown. At the third level we have indicated potential internal flows, even though at present no information is available regarding theire magnitude. The diagram does not portray the rather extensive and variegated further education system for the adult population.

The size of boxes is no way propotional to the number of pupils/students concerened. The duration indicated for a particular type of education is that which applies in the majority of cases: it may and does differ for certain fields of study, particularly in third level and part-time education.

The ages indicated apply to pupils whose passage through the system has followed the normal pattern, i.e., to those who have neither been held back nor skipped grades. As the education process from the second to the third level is generally disrupted in Israel due to compulsory military service, the age of entry into third level education is more advanced and far more variable than in other countries. No ages are shown, therefore, for third level education. In this regard it is important to note that the compulsory military service or three years appearing in the diagram refers to men. For women, the duration of compulsory military service is two years. The theoretical age of entry of women into third level or pre-third level education is, therefore, 20, as opposed to the theoretical age of 21 (for men) appearing in the diagram.

Finally it should be noted that the methodology used in preparing the diagram and the symbols appearing therein follow, with few exceptions, those used in the OECD publication *Education in OECD Countries 1988-89 – A Compendium of Statistical Information*, Paris, 1993.

The Education System in Israel



Appendix B
Technical Appendix

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1. Introduction

Data on institutions of higher education in this publication refer mainly to the seven universities in Israel. These are, according to date of establishment:

The Technion – Israel Institute of Technology	1924
The Hebrew University of Jerusalem	1925
The Weizmann Institute of Science	1949
Bar-Ilan University	1955
Tel Aviv University	1956
The University of Haifa	1963
Ben-Gurion University of the Negev	1964

In the tables, these institutions appear in a different order, which is the order generally used in the publications of the Central Bureau of Statistics.

In addition, this publication presents data on the Open University, as well as two types of non-university institutions: teacher-training colleges and other institutions of higher education. These are listed below according to the type of institution and either the year in which the institution was first accredited by the Council for Higher Education (for at least one program of study), or the year in which the institution received a permit to open and maintain an institution of higher education, for those not yet accredited.

A. **The Open University** 1980

B. **Teacher-training Colleges***
(Specified courses of study leading to the "Bachelor of Education" degree –B.Ed.)

Michlala, Jerusalem College	1979
The David Yellin Teachers College	1979
Beit-Berl Teachers College	1981
The Zinman College of Physical Education at the Wingate Institute	1984
Levinsky Teachers College	1986
State Teachers College Seminar Hakibbutzim	1988
"ORT" Academic College for Teachers in Technology (Course leading to "Bachelor of Education in Technology" degree, B.Ed.Tech)	1990
"Oranim" – School of Education of the Kibbutz Movement	1991
A. D. Gordon Educational College**	1994 (permit)
"Talpiot" College**	1994 (permit)

C. **Other Institutions of Higher Education**

The Jerusalem Rubin Academy of Music and Dance	1974
Bezalel – Academy of Art and Design, Jerusalem	1976
Jerusalem College of Technology	1977
Shenkar – College of Textile Technology and Fashion	1979
Ruppin Institute of Agriculture (only the course in economics and management of communal settlements)	1980
The College of Management (established by the Clerical Workers Union) – (only specializations in accounting, marketing, and law)***	1988
"ORT" Braude Technological College**	1994 (Permit)

In 1992/93, we began publishing data on students in academic tracks at regional colleges. These academic tracks are under the auspices of one of the universities (not including the Open University). Up to 1992/93, these students were included in the data for the parent institution.

The following is a list of the regional colleges that offer academic tracks sponsored by each university:

Ben-Gurion University of the Negev
Municipal College of Eilat
S. Sapir Regional College of the Negev

* From 1990/91 on, the data on teacher-training colleges also includes students and degree recipients from the Center for Technological Education in Holon (under the academic auspices of Tel Aviv University). This institution awards a "Bachelor of Science in Technological Education" (B.Sc.TE).

** Data on the students, etc., of these institutions will be incorporated in the statistics on higher education from 1993/94 on.

*** In 1994, the College of Management received a permit to open a program in communications. Data on students, etc., in this department will be incorporated in the statistics on higher education from 1993/94 on.

Tel Aviv University
Menashe Regional College
Bar-Ilan University
Alperin Regional College of the Jordan Valley
Safed Regional College
Ashkelon Regional College
Judea and Samaria Regional College
University of Haifa
Emek Yezrael Regional College "Ohel Sarah"
Tel-Hai Rodman Regional College (the agricultural studies program at this college is under the auspices of the Hebrew University, while the biological studies program is under the auspices of the Technion)
Western Galilee Regional College

The data in this publication are the most up-to-date available at time of press. Data based on estimates, as well as data of a preliminary nature, are clearly indicated wherever they appear.

This publication was prepared primarily from data compiled by the Central Bureau of Statistics. Thus, any data whose source is not specifically cited is taken from this source. The source of the data in a given table is only listed if that data is taken from a source other than the Central Bureau of Statistics. Section 2 below details the data sources for each table individually. The definitions and classifications used in this publication are described in Section 3 below. Section 4 lists and explains the price indices that were used in presenting the financial data in Chapter 7 on the ordinary budgets of the institutions of higher education funded by Planning and Budgeting Committee.

The symbol (..) in certain cells of some tables indicates that the relevant data is lacking, while the symbol (-) indicates that there were no occurrences of the event specified in that cell of the table. The symbol (§) indicates data that were updated since the previous edition of the publication. In some tables dealing with demographic characteristics such as country of origin and age, there were instances of "unknown" values. These instances were allocated proportionally among the known values.

2. Sources

Chapter 2: Potential for and Accessibility to Undergraduate Studies

Matriculants (Tables 2.1 and 2.2)
Data on the total number of matriculants in the years 1980/81 to 1992/93 were computed by the Planning and Budgeting Committee, based on the following sources: 1) Central Bureau of Statistics data on internal matriculants from 1983/84 to 1985/86 (including resit examinees from previous years who completed the requirements for the matriculation certificate) and 1986/87 to 1990/91 (not including resit examinees), and data on external examinees who qualified for the matriculation certificate in the years 1981/82 to 1990/91; 2) data obtained from the Testing Section of the Ministry of Education and Culture on resit examinees who qualified for the matriculation certificate in the years 1989/90 to 1992/93; and 3) Central Bureau of Statistics data on 12th-grade students by type of school and study track for the years 1980/81 to 1992/93.
Data refer to both Hebrew and Arab education. Data on the demographic characteristics of matriculants (Table 2.2) were produced by the Central Bureau of Statistics on the basis of the file on matriculation examinations of the Ministry of Education and Culture, as well as the files of the *Population and Housing Census 1983*. These data refer to internal matriculants. They include resit examinees who later qualified for the matriculation certificate from the high-school graduating classes of 1983/84 to 1985/86, but they do not include resit examinees for the graduating classes of 1986/87 onwards.

12th-Graders (Table 2.1)
Data are based on the file of students in the Ministry of Education and Culture, as processed by the Central Bureau of Statistics. Data refer to status at the beginning of each school year.

Pre-academic Preparatory Programs (Table 2.3)
Up to 1984/85, the Association for the Advancement of Education (AAE) produced statistics on the pre-academic preparatory programs that it supervises. Data for this period refer to status at the beginning of each school year. From 1988/89 on, the data were produced by the Central Bureau of Statistics based on the AAE's student file. These

data refer to status during the course of the school year.
Data cover pre-academic preparatory programs run by universities, regional colleges, and teacher-training institutions. Data on the demographic characteristics of participating students were based on data that the AAE obtained directly from the students.

Preparatory Programs for New Immigrants (Tables 2.4 and 2.5)
The Students Authority of the Ministry of Immigrant Absorption produces data on the students that it supports in preparatory programs for new immigrants at the universities. The data refer to the status in July of each academic year.
For further information on immigrant students, see the Students Authority annual report, *Statistical Data*.

Psychometric Examination Examinees (Table 2.6)
Data were produced by the National Center for Testing and Evaluation. Data refer to the number of examinees who took the examination, in Israel or abroad, on one of the testing dates during the calendar year.
Each examinee is counted only once (in the year in which he or she took the examination for the first time), even if he or she took the examination more than once. The data on examinees' demographic characteristics were taken from a questionnaire that examinees filled out when registering for the examination.

Candidates for Freshman-Year Studies in Universities (Tables 2.7 to 2.11)
The Central Bureau of Statistics produced these data from the universities' files of candidates for freshman-year studies. These files reflect the status in April of the year for which the candidates applied to begin their studies. Data on students admitted and commencing studies were also taken from the candidate files; these data may differ slightly from the data on freshman students at universities (appearing in Chapter 3), which are based on the universities' tuition-fees files. Data on candidates' demographic characteristics (Table 2.11) were produced via a linkage of the candidates file with the Population Register.

Chapter 3 – Students in Institutions of Higher Education

Students in Regional Colleges (Table 3.1)
Data were produced by the Central Bureau of Statistics from the regional colleges' student files. Data refers to students registered in the colleges' academic tracks towards a bachelor's degree. Data do not include students at any regional college in academic tracks under the auspices of the Open University.

Students at Universities (Tables 3.1 to 3.12)
Data for the years up to 1963/64 include all the students at a university, and refer to the beginning of each academic year. Since the 1964/65 academic year, the data include only students studying for a recognized degree, who have paid their tuition fees for the given year. These data refer to the middle of the academic year (including students who were admitted for the second semester), and therefore do not include students who canceled their registration before this date. Since 1975/76, data are based on processing of the institutions' tuition-fees files, according to the status in April of the relevant academic year, with supplementary estimates by the Central Bureau of Statistics.
Data on university students' demographic characteristics, up to 1974/75, are based on replies to personal questionnaires filled out by every student. From 1980/81 to 1988/89, these data are based on a linkage between the student file and the files of the *Population and Housing Census 1983*; in 1989/90, these data are based on a linkage between the student file and the Population Register.
The data on university students in 1992/93 in Table 3.1 do not include students who appeared in the universities' tuition/fees files as students at regional colleges. For the rest of the tables, students at regional colleges are included in the data on university students.

Students at the Open University (Tables 3.13 to 3.14)
Data are based on statistical reports prepared by the Open University for the Central Bureau of Statistics, as well as a report specially prepared for this publication at the request of the Planning and Budgeting Committee.

Students at Teacher-Training Colleges and other Institutions of Higher Education (Tables 3.15 to 3.18)

Up to 1991/92, data on students at teacher-training colleges are based on an annual census of the Central Bureau of Statistics, in which general data are collected from the administration of each institution (with the exception of 1988/89, for which data were processed from the Ministry of Education and Culture's student file). Starting in 1992/93, the data are produced from the institutions' student files.

Up to 1985/86, data included all students in all years of study in the program for teachers of general subjects for grades 7 and 8, while only fourth-year students were included for other programs permitted or accredited by the Council for Higher Education as academic tracks. From 1985/86 on, the data include students in all years of study (first through fourth) in these programs.

Data on students in other institutions of higher education up to 1991/92 are based on an annual census of the Central Bureau of Statistics for higher education frameworks (such a census is also carried out for non-academic post-secondary educational frameworks). From 1992/93 on, the data are produced from the institutions' student files.

Fellowships for Postgraduate Degrees and Post-doctoral Appointments (Tables 3.19 and 3.20)

Data for 1986/87 are based on a survey by Mashov Co. for the Planning and Budgeting Committee. From 1990/91 on, the Planning and Budgeting Committee processed and tabulated the data on the basis of reports specially prepared by each university.

Chapter 4 – Progression of University Studies

Progression of Matriculants into Undergraduate Studies (Tables 4.1 and 4.2)

Data were produced by the Central Bureau of Statistics by record-linkaging multi-year files of internal matriculants (including resit examinees who qualified for the matriculation certificate) with multi-year files of students at universities. Data on the demographic characteristics of matriculants who commenced university studies are based on record-linkaging the above files with the files of the *Population and Housing Census 1983*.

Progression of Studies at Universities (Tables 4.3 to 4.17)

Data were produced by the Central Bureau of Statistics by record-linkaging multi-year files of students with multi-year files of degree recipients. Data on the demographic characteristics of freshman students are based on record-linkaging the above files with the files of the *Population and Housing Census 1983*.

Chapter 5 – Recipients of Degrees at Institutions of Higher Education

Recipients of Degrees at Universities (Tables 5.2 to 5.10)

The population of degree recipients from academic institutions in a given year refers to everyone who received a degree, or was entitled to one, in one of the degree-granting ceremonies held during that academic year. Data are based on files obtained by the Central Bureau of Statistics from the institutions. Data on demographic characteristics of degree recipients, up to 1988/89, are based on a linkage of the files of degree recipients with the files of the *Population and Housing Census 1983*; in 1989/90, these data are based on a linkage of the degree recipients files with the files of the Population Register.

Recipients of Degrees from the Open University (Table 5.11)

Data are based on statistical reports produced by the Open University at the request of the Central Bureau of Statistics.

Recipients of Degrees from Teacher-Training Colleges and Other Institutions of Higher Education (Tables 5.12 and 5.13)

Up to 1991/92, data were obtained by processing lists of names of degree recipients that the Central Bureau of Statistics received from the institution secretariats as part of its annual census of post-secondary and higher education. Starting in 1992/93, the data were produced directly from the institutions' files of degree recipients.

Chapter 6 – Staff at Institutions of Higher Education

Staff at Universities (Tables 6.1 to 6.13)
Data refer to academic, technical, and administrative staff at all ranks, employed at universities on monthly salaries, in all budgetary frameworks. Data for 1978/79 and 1981/82 are derived from special institutional surveys commissioned by the Planning and Budgeting Committee, based on the universities' computerized wage files. From 1992/93 on, the data are based on statistical reports commissioned by the Planning and Budgeting Committee, produced by the institutions themselves with the Committee's guidance. The Committee also processed and edited the material obtained.
The totals for senior academic staff financed by the ordinary budget by academic field, age, and sex (Tables 6.9 to 6.13) vary slightly at some of the institutions from the totals for the senior academic staff which appear in Table 6.6. This discrepancy apparently stems from the fact that the report by academic field, etc., was produced by the institution on a different date than the current personnel report, and that slight retroactive changes occurred in the academic staff's status during this interval.

Staff at the Open University and Other Institutions of Higher Education (Table 6.14)
The Planning and Budgeting Committee obtained this data from the institutions that it supports. The Committee then processed and edited the data.

Chapter 7 – Financial and Physical Data on Institutions of Higher Education

The National Expenditure on Education, on Tertiary Education, and on Higher Education (Table 7.1)
Totals for the above expenditures were derived from data compiled and published regularly by the Central Bureau of Statistics, and are based on a detailed analysis of expenditures listed in the financial reports of Government agencies, national institutions, local authorities, and non-profit organizations.

The Ordinary Budget of Institutions of Higher Education Funded by the Planning and Budgeting Committee and its Sources (Tables 7.2 to 7.5)
Data were compiled and processed by the Planning and Budgeting Committee from institutions' financial reports, as well as from internal administrative data of the PBC. Data do not include the Ruppin Institute of Agriculture, funded by the PBC; nor do they include the College of Management – Academic Studies, Tel Aviv, or the teacher-training colleges, which are not funded by the PBC.

Tuition Fees at Universities (Table 7.6)
Data were collected by the Planning and Budgeting Committee. These data refer to tuition costs for a student whose fees are not paid by an institution or employer.

The Development Budget of Institutions of Higher Education Funded by the Planning and Budgeting Committee (Tables 7.7 and 7.8)
Data were collected and processed by the Planning and Budgeting Committee, based on the institutions' financial reports.

Built-up Areas at Universities (Table 7.9)
Data on built-up areas were calculated from lists of buildings at the universities. These lists are regularly supplied to the Planning and Budgeting Committee as part of its supervision of the universities' development budgets.

Chapter 8 – Inputs and Outputs of University Research

National Expenditure on Civilian R&D (Table 8.1)
Data on this expenditure were compiled and computed by the Central Bureau of Statistics, based on detailed surveys of the primary sectors that carry out and finance R&D activities. For a detailed description of the calculation method, see: The Central Bureau of Statistics, *National Expenditure on Civilian R&D – 1989*, Special Publication No. 949, Jerusalem, 1993/94.

Expenditures on Specially-Financed Research Budgets (Table 8.2 and 8.3)
Data were edited and compiled by the Central Bureau of Statistics, based on detailed files obtained from the seven universities.

Publications of Israeli Researchers in the Fields of the Natural Sciences, Medicine, and Technology (Table 8.4)

Source of data: Science and Engineering Indicators Literature Database, managed by the American firm CHI Research, Inc. The data appeared in: National Science Board, *Science and Engineering Indicators – 1993*, Washington, D.C.: U.S. Government Printing Office, 1993 (NSB 93-1), p. 424.

Data are based on numbers of articles published in a fixed group of more than 3,500 scientific journals included in the Science Citation Index in 1981. Articles were sorted by country according to the author's address, as it appeared in the article. Articles written by authors from more than one country were divided among the countries, pro-rated according to each country's share of the total number of authors of the article.

Publications by Researchers at Israeli Universities (Table 8.5)

Data is taken from a special database constructed by the Center for Information in the Social Sciences, Henrietta Szold Institute, the National Institute for Research in the Behavioral Sciences. This database includes data on publications by university researchers published in 1992 in scientific journals covered in the following databases:

1. The Szold Institute's database on publications in the social sciences
2. Social Science Citation Index (SSCI)
3. Psyclit – Database on the field of psychology
4. Econlit – Database on the field of economics
5. Sociofile – Database on the field of sociology
6. ERIC – Database on the field of education
7. ABI/INFO – Database on the field of management
8. Social Work Abstracts (SWAB) – Database on the field of social work
9. Science Citation Index (SCI)
10. Arts & Humanities Citation Index
11. Index to Hebrew Periodicals of the University of Haifa.

Articles were identified as belonging to Israeli university researchers according to the authors' addresses, as they appeared in the articles. These addresses were also used to sort articles by institution and scientific field. Articles with more than one address were divided among the addresses, pro-rated according to the total number of addresses (not the number of authors). For example, an article that was written by two researchers from the Economics Department at the Hebrew University, one researcher from the Economics Department at Tel Aviv University, and one researcher from a university abroad would be divided as follows: one third would go towards the Hebrew University's total; one third towards Tel Aviv University's total; and one third would be counted towards foreign researchers.

Chapter 9 – Israeli Students and Degree Recipients Abroad

Israeli Students Abroad (Table 9.1)

Data are based on the *UNESCO Statistical Yearbook*; for some of the countries, where significant concentrations of Israelis are studying, supplementary national sources were used as well. Every year, the *UNESCO Statistical Yearbook* publishes data on foreign students in 50 countries, by country of origin. UNESCO points out that this group of 50 countries, which varies in composition from year to year, host about 95% of all foreign students world-wide. We assumed that these 50 countries account for all the Israelis studying abroad, and data from 1985 onward show this to be a reasonable assumption. However, before 1985, the UNESCO data did not adequately cover the Eastern European countries in which Israelis were studying, such as Romania and countries of the former Soviet Union. Thus, the data in Table 7.1 on Israeli students in Eastern Europe during this period probably tend to be lower than the actual values.

The *UNESCO Statistical Yearbook* defines a "foreign student" as one who is registered as a student at a post-secondary or higher education institution in a country where he or she is not a permanent resident. UNESCO notes, however, that in most countries, a foreign student is defined by having a foreign passport, and not by their residency status (temporary or permanent). It is important to note that the U.S. uses UNESCO's definition of a foreign student. Therefore, the data on Israeli students in the U.S. which appears in Tables 9.1 and 9.2 do not include students who have Israeli

citizenship but have permanent residency status in the U.S. (green card). Likewise, these data do not include Israelis bearing dual citizenship who are studying in a country where they are also citizens. UNESCO also points out that the data should include all foreign students at both post-secondary and higher education institutions, but that the different countries vary in their treatment of this data as well. In some countries, the data relate only to universities, or only to public institutions, etc.

Israeli Students in the U.S. (Table 9.2)
Data are based on two series of publications of the Institute of International Education, located in New York: *Open Doors and Profiles*. As noted above, the data relate only to students with temporary resident status. Data on all Israeli students in the U.S. are based on responses obtained from the institutions hosting about 96% of all foreign students studying in the U.S. The distributions by degree level and field of study are based on detailed responses obtained on about two-thirds of the Israeli students identified as studying in the U.S. For further information on the calculation method, refer to the above publications.

Israeli Citizens Receiving Doctoral Degrees in the U.S. (Table 9.3)
Data are based on the following sources:

National Science Foundation, *Science and Engineering Doctorates 1960/1991*, Washington, DC, 1993, (NSF 93-301)

National Science Foundation, *Selected Data of Science and Engineering Awards: 1992*, Washington, D.C., 1993 (NSF 93-915)

Data provided us directly by the National Research Council of the U.S., which conducts an annual survey of doctoral recipients in the U.S. and maintains a multi-year database on doctorates from American institutions.

A foreign doctoral degree recipient, according to the above sources, is someone who had temporary resident or permanent resident (green card) status at the time of receiving the degree. An Israeli citizen who also held American citizenship at the time of receiving a doctoral degree would be counted as a domestic doctorate recipient rather than an Israeli one.

3. Definitions and Classifications

Chapter 2 – Potential for and Accessibility to Undergraduate Studies

12th-graders – pupils in grade 12 of secondary schools in Hebrew and Arab education, whose programs of study are carried out in accordance with the curriculum of the Ministry of Education and Culture, under its supervision, and which grant certificates recognized by the Ministry. The **matriculation track** includes students at general and agricultural secondary schools; at extension classes in working settlements; in the general track at multi-track schools; and in the secondary track at technological schools or multi-track schools.

Matriculants – pupils who passed the matriculation examinations, the extent and composition of which met the Ministry of Education and Culture's requirements, and who fulfilled all the other requirements for a matriculation certificate. **Internal** matriculants are pupils who took the examinations within the framework of a secondary school supervised by the Ministry of Education and Culture and fulfilled the above requirements. **External** matriculants are pupils who took the examinations outside the framework of a secondary school supervised by the Ministry of Education and Culture, and who fulfilled the above requirements.

Pupils in pre-academic preparatory programs – pupils studying for one year or longer in programs that prepare them for academic study in one of three frameworks:

1. Pre-academic preparatory programs held at and under the auspices of a university
2. Pre-pedagogical preparatory programs held at one of the teacher-training colleges accredited by the Council for Higher Education
3. Programs for the completion of secondary studies, set up by the Association for the Advancement of Education, and held at regional colleges

Pupils worthy of advancement – pupils who meet social and economic criteria set forth by the Association for the Advancement of Education, and are thereby entitled to special support.

Pupils in preparatory programs for new immigrants – new immigrants studying in a program at one of the universities, intended to prepare them for freshman studies at a university (these programs include both immigrants and potential immigrants).

Psychometric examination examinee – anyone who has taken the psychometric examination for the first time, either in Israel or abroad. This examination is administered by the National Center for Testing and Evaluation.

Candidates – people who apply for admission to the freshman year of undergraduate studies at one or more universities. Each candidate is only counted once in a given year. Candidates who also applied in previous years are included in the data. Students who apply to a university in order to change their majors are not included in the definition of candidates.

Applications – applications submitted by candidates for admission to the freshman year studies at a particular university. Thus, a single candidate may be counted as having several applications, since each candidate is counted in the application tally of each university to which he or she applied. Applications by one candidate to different departments in a single university are counted as a single application.

Application results – refer to the status in April of the year for which the application was made. The classifications are as follows:

A. **For candidates**
Data refer to the most favorable result from the candidate's point of view:
Admitted and studying* – the candidate was admitted by a university, and began studying in any field.
Admitted and not studying – the candidate was admitted by at least one university but was not studying at any university in April of that year.
Rejected – the candidate received negative responses from all the universities to which he or she applied.
Other – a candidate who canceled his or her application before receiving a response, or who had not yet received a final response from at least one university and had not been accepted by any other university.

B. **For applications**
Results (according to the above categories) refer to the status at the university to which the application was made. For example, a candidate who was accepted to a university but is not studying there: in some cases, he or she was admitted to a second university and is studying there, and in other cases, he or she did not start studying at any university.

Chapter 3 – Students in Institutions of Higher Education

Student – a person in an accredited institution of higher education, studying for a recognized academic degree. This includes any institution that has received a permit to open and maintain an academic institution for the program stated in the permit.

Degree level – Degrees are classified in four levels, as follows:
Bachelor's degree – includes the degrees B.A., B.Sc., L.L.B., B.Ed., etc.
Master's degree –includes the degrees M.A., M.Sc., etc., as well as the degrees Doctor of Medicine (M.D.) and Doctor of Dental Medicine (D.M.D.).
Doctorate – includes the degrees D.Sc., Ph.D., etc.
Diploma – a diploma which is not recognized by the laws of the Council for Higher Education, but is granted at the completion of a program of study, for which the prerequisite is a previous academic degree (such as studies toward a teaching certificate or towards a diploma in library sciences, both of which require a bachelor's degree for admission).
Students working on master's degrees, doctorates, or diplomas are termed **postgraduate students**.

* In Table 2.10, the term "Admitted and not studying" has a different meaning. There it indicates a candidate who was admitted to any institution **in his or her first-choice field**, who commenced study in that field.

while those studying towards bachelor's degrees are termed **undergraduate students**.

Until 1984-85, students studying for the M.D. degree were counted with undergraduate students in the first four years of their program, and were counted with master's degree students from the fifth year of their program. Starting in 1985/86, students in the first three years of an M.D. program are counted with undergraduate students and from the fourth year on, they are counted with master's degree students.

Students studying for a degree and a diploma simultaneously are counted only once, according to the **degree**. Numbers of students studying for diplomas, therefore, include only those who have already obtained an academic degree and who are studying only for the diploma. A student working on two degrees simultaneously (for example, a student who begins studies for a master's degree before completing the requirements for the bachelor's degree) is counted according to the degree which he or she began first.

Students at the Open University – Anyone who has enrolled and paid tuition fees for an academic course during either one or both of the semesters of the given year. A student is counted only once if he or she studied in both semesters in a given year, or in more than one course in a semester.

New students – registrants who have not participated in any academic courses at the Open University in the past (where participation is considered as the paying of tuition fees). **Year of study** at the Open University is determined by the number of credits that a registrant has accumulated, including credits for previous academic study: **first year** – up to a third of the number of credits required for graduation; **second year** – more than a third but less than two thirds of the number of credits required for graduation; and **third year** – more than two thirds of the credits required for graduation.

Field of study

A. At universities

Subjects of study have been classified according to the scientific field to which they belong in the *Code for Subjects of Study in Academic Institutions in Israel*, prepared by the Central Bureau of Statistics.

A student studying two subjects in different fields of study, is classified according to the field that appears first in the institution's files.

Fields of study are grouped at two levels of detail:

Fifteen fields	**Seven fields**
General humanities (including Jewish studies)	
Languages, literature, and regional studies	
Education and teacher training	
Arts, crafts, and applied arts	
Special programs and miscellaneous	Humanities
Social sciences	
Business and management	Social sciences
Law	Law
Medicine	
Paramedical studies	Medicine
Mathematics, statistics, and computer sciences	
Physical sciences	
Biological sciences	Mathematics and natural sciences
Agriculture	Agriculture
Engineering and architecture	Engineering and architecture

B. At the Open University

Registrants are classified in one of two fields: either "the humanities and social sciences", or "mathematics and natural sciences". The classification is based on the majority of the student's courses.

C. At teacher-training colleges and other institutions of higher education

Students are classified in five different groups, as follows:

Education – training of nursery school and kindergarten teachers, teachers for all age groups, teachers for technological education, informal education, special education, etc.

Applied sciences and engineering – electronics, computers, optics, textile technology, textile chemistry, etc. Does not include technical education and technological education.

Economics and business administration – business administration, accounting, industrial management, economics and management of communal settlements, etc.

Arts and design – music, dance, painting, sculpting, gold- and silver-smithing, photography, graphic design, ceramic design, industrial design, environmental design, textile design, fashion design, etc.
Law

Until 1987/88, textile and fashion design were classified under "applied science and engineering". Since 1987/88, these fields are included under "arts and design".

Fellowship – A grant given to graduate and post-doctoral students, derived from various sources, administered by the institution where the students are studying or doing their post-doctoral work. This grant is intended to partially or entirely cover the students' living expenses for the term of the grant. Fellowships are generally transferred to the recipient in monthly or bimonthly installments spread out over the term of the grant. This definition does not include merit prizes, etc., which are usually granted to recipients as a lump sum.
Fellowships are calculated in **full-time equivalents (FTE).** For a single fellowship, the equivalency value is calculated as follows: the fraction of a full fellowship, multiplied by the number of months for which the fellowship is in effect in a given year, divided by 12. The fraction of a full fellowship is determined according to the practices of the financing party (the academic institution where the recipient is studying, or the external funding source) regarding the amount considered to be a full fellowship. This amount takes into account the student's stage in his or her studies or post-doctoral work, as well as any other criteria that the financing party chooses to consider.

Post-doctoral fellow – The recipient of a Ph.D. degree or its equivalent who is receiving advanced research training under the guidance of members of an institution's senior academic staff for an extended period of time (half a year or more).

Chapter 4 – Progression of Studies at Universities

Data refer only to the universities; they do not include studies at the Open University, teacher-training colleges, or other institutions of higher education.

High-school graduating class – a group of internal matriculants who completed 12th grade in the same year, whether they became eligible for the matriculation certificate upon completion of 12th grade or at a later date.

Commenced university studies – were admitted to an Israeli university and began studying there towards a bachelor's degree.

Freshman class – a group of students who began their undergraduate studies in the same year.

Year of study – the number of years elapsed since an individual student's commencement of university studies, not related to the amount of time spent actually enrolled during those years.

Received a degree within *x* years – from the beginning of studies for a particular degree, up to the year in which the degree was received, the student did not exceed $x+1$ years. This definition takes into consideration that the degree-granting ceremony is generally held in the academic year following the date on which the student completed his or her requirements for the degree.

Interrupted their studies – Except for Table 4.7, this term refers to students from a given freshman class, who were not studying in a given year, whether or not they later returned to a university. In Table 4.7, this term refers to students who left their studies sometime during their first two years of university, and had not returned by the end of the fifth year after their initial enrollment. For an individual student, the definition of Table 4.7 fits the expression dropped out of university studies, while the definition applied in the other tables refers to students who left their studies temporarily and did not necessarily drop out of university.

Graduating class (bachelor's or master's degree) – a group of students who formally received a specific degree (bachelor's or master's) at a degree-granting ceremony in a given year.

Field of study at initial enrollment – the primary field of study in which a student was admitted for the degree that he or she is currently working on, even if the student later changed the field of study for that degree. The fields of study in this section are as defined in Section 3.

Field of study for a bachelor's or master's degree – the primary field of study in which a student received his or her most recent degree, regardless of the field in which the student was admitted for the current degree (master's or doctoral degree).

Institution at commencement of studies – the institution at which a student began studying for the current degree, even if the student moved to another institution during the course of the degree studies.

Chapter 5 – Recipients of Degrees from Institutions of Higher Education

Degree recipient – the recipient of a degree recognized by the Council for Higher Education (or was entitled to receive one), or anyone who received a diploma for which a previous academic degree was a prerequisite. Someone who received both a diploma and a degree in the same academic year is counted only once, as someone who received a degree.

Field of study – as in Section 3.

Chapter 6 – Staff at Institutions of Higher Education

Staff – active staff in all scales and ranks who are employed on a monthly basis, excluding academic staff in the clinical track at medical schools, who are not included in the data. The data also excludes fellows (including post-doctoral fellows) and staff employed on an hourly or piece-work basis. Active staff does not include employees who are on sabbatical leave abroad, those who are on unpaid leave, and retirees.

Full-time equivalent positions (FTE) – the wage files of each institution state the fraction of a position held by each staff member, for each month of employment, for the purpose of wage payments according to that institution's regulations. Data on fractions of positions were used to calculate numbers of full-time equivalent positions, without considering the number of work hours that they represent. "Full-time equivalent positions" is an annual figure which measures the average number of fractional positions of employees over the course of a year. This figure is calculated according to the following formula: the summation, over the period of a year, of the employer's monthly fractional positions, divided by 12.
Salary bonuses such as those given for research, specific jobs, over-time work, etc. are not included when calculating fractions of positions.

Teaching and research staff at universities – senior academic staff, junior academic staff, teaching and research assistants, teachers in the MD track and teaching track, external teachers, and other teaching and research staff, as defined below:

Senior academic staff – staff bearing the ranks of full professor, associate professor, senior lecturer, and lecturer, in the regular track, as well as staff with the corresponding ranks in other tracks. As noted, this definition excludes clinical teachers in medical schools, who are not counted in the data.

Junior academic staff –staff bearing the ranks of senior instructor, instructor, "assistant B" and "assistant A", or corresponding ranks, in the regular track and in other tracks. Doctoral candidates employed as instructors of various ranks at the Technion, whose salaries differ from those of employees in identical positions at other institutions, appear in the data as instructors.

Teaching and research assistants – students who have completed the bachelor's degree and are studying for the master's degree are often appointed as teaching or research assistants. At the Technion, assistants, whose status is comparable to teaching and research assistants at other institutions, are included in the category of teaching and research assistants.

M.D.-track teachers – includes teachers and researchers at the medical schools at Tel Aviv University and the Technion, who are ranked according to the doctors' scale. This category does not include doctors whose employment at hospitals is financed by the university budget in lieu of monetary payments.

Teachers (Teachers' track) – teachers employed by universities according to the salary scale for school teachers, as set by the Ministry of Education and Culture. This includes language teachers, teachers in pre-academic preparatory programs, teachers in special study programs, etc.

External teachers – senior and junior academic faculty who are paid by the institution on the basis of teaching units rather than a monthly salary. Eight teaching units per week is considered a full-time position (a teaching unit is equivalent to one hour of frontal teaching, where the teacher is also required to participate in departmental activities).

External teachers who are employed at ranks comparable to lecturers and professors (B and C) are defined as **senior**, while those at lower ranks are defined as **junior**.

Other teaching and research staff – academic staff with undefined rank, and academic staff employed on the basis of special contracts.

Technical staff – employees ranked according to the scales of engineers, laboratory assistants, microbiologists, and technicians. At the Technion and Ben-Gurion University of the Negev, technical employees are included in the technicians' scale. This also holds for staff at Tel Aviv University who are employed on special contracts and are identified as working in one of the technical professions.

Administrative staff – employees ranked according to the unified wage scale and the scale of graduates in the humanities and social sciences, as well as staff fulfilling administrative functions, employed on special contracts, and apprentices. Employees ranked according to the scales of attorneys, doctors (not those in teaching and research positions) and special scales of other administrative functions are defined as other administrative staff.

Staff at the Open University and other institutions of higher education – includes all staff employed on a monthly basis, classified as follows:
Academic staff – at the Open University, includes senior academic faculty; at other institutions of higher education, includes senior and junior academic staff, and all other staff engaged in frontal teaching.
Technical and administrative staff – at the Open University, includes all academic staff, not classified as senior academic staff, who are engaged in course development and planning or are employed as tutors, examiners, etc., in addition to technical and administrative staff as defined above for universities. At other institutions of higher education, this classification is the same as at universities.

Type of budget – university staff are classified according to the type of budget that finances their employment, as follows:
Staff financed from the ordinary budget – refers to staff whose salaries are included in the institution's ordinary, current expenses.
Staff financed from closed budgets – refers to staff whose salaries come out of special closed budgets such as special extra-curricular programs (pre-academic preparatory programs, preparatory programs for new immigrants, one-year programs for overseas students, etc.), as well as other defined activities budgeted from earmarked income and other sources of support.
Staff financed from research budgets – refers to staff whose salaries come out of budgets earmarked for various projects, primarily research-related, usually funded by external sources.

Field of study – Academic staff are classified by the departments in which they are employed. Fields are classified as in Section 3.

Age – Determined as of September of the reporting year.

Chapter 7 – Financial and Physical Data on Institutions of Higher Education

National expenditure on education – composed of expenditures for current expenses (wages and salaries, including supplemental payments, current purchases less sales, and housing expenditures) and expenditures for investment in fixed capital.

Current national expenditure on education – includes the value of all current educational services provided to the population, excluding educational services provided by the Israeli Defense Forces.

Investment in fixed capital –includes expenditures incurred in erecting buildings and purchasing equipment at institutions that provide educational services.

National expenditure on tertiary education – composed of the expenditures and investments of higher and post-secondary education institutions,

including schools for applied engineers and technicians, non-academic teacher-training colleges, etc.

National expenditure on higher education – composed of the expenditures and investments of the various types of institutions of higher education as described in detail below.
Universities – This includes the Hebrew University, the Technion, Tel Aviv University, Bar-Ilan University, University of Haifa, Ben-Gurion University of the Negev, and the Feinberg Graduate School of the Weizmann Institute of Science. It does not include the expenses of the Weizmann Institute (except for the Feinberg School). It also does not include research expenses, which are covered by the universities' research budgets.
Teacher-training colleges – This includes all the institutions listed as teacher-training colleges in Section 1 of this appendix, each of which are either recognized by the Council For Higher Education as a higher education institution, or who had received a permit to open and maintain an institution of higher education as of 1990.
Other institutions of higher education – This includes the Open University and all the institutions listed in Section 1 of this appendix, each of which are either recognized by the Council For Higher Education as an institution of higher education, or who had received a permit to open a higher education institution as of 1990.
For more detailed information, see *The National Expenditure on Education, 1990, and Early Estimates for 1991 and 1992*, **Supplement to the Israeli Monthly Statistical Bulletin**, No. 12, 1993, published by the Central Bureau of Statistics.

Ordinary budget – the budget intended to finance the institution's normal, current expenses. The ordinary budget is financed from three primary sources:
– Participation by the Government and the public sector, via the Planning and Budgeting Committee
– Tuition fees
– Independent income (donations, profits from endowment funds, sale of services, etc.)

PBC participation – falls into three categories:
Direct participation – composed mainly of the global allocations that PBC distributes among the institutions that it supports. These global allocations represent public support for the institutions' regular teaching and research activities.

Earmarked participation – includes two parts: 1) budgets allocated to promote topics of special concern at the institutions; and 2) matching allocations for institutions' endowment funds.
One-time participation – primarily allocations to cover institutions' accumulated debts.

The development budget – Development budgets of institutions of higher education are intended for specific construction projects (including necessary equipment and furnishings), as well as investments in the general physical infrastructure. At some institutions, the development budget also includes the purchase of scientific equipment. The data presented in the tables in this publication do not include purchases of scientific equipment, neither those purchases included in the institutions' ordinary budgets, nor those purchases included in the development budgets. The development budget is financed from two sources: 1) donations; and 2) government participation, via the Planning and Budgeting Committee.

Chapter 8 – Inputs and Outputs of University Research

Research and Development (R&D) – As defined by the OECD, research and development is systematic, original activity designed to produce new scientific or technological knowledge, or to discover a new application for existing scientific or technological knowledge.

National expenditure on civilian R&D – the total of all current expenditures and gross investments in R&D carried out within the country in various sectors, excluding expenditures on R&D activities conducted to promote military objectives.

Higher education – the seven universities and their associated research institutes.

R&D expenditures at institutions of higher education – current expenditures and gross investments at universities for R&D activities. This expenditure has three components:
– Expenditures from the universities' ordinary budgets, assigned to R&D activities

- Expenditures from specially-funded research budgets
- Gross investments from the universities' development budgets, credited to R&D activities.

For a detailed explanation of the methods used to calculate R&D expenditures in higher education, see:
Central Bureau of Statistics, *Inputs in Research and Development at Universities – 1986/87, 1988/89*, Special Publication Series no. 930, Jerusalem, 1992/93.

Specially funded research budgets – special budgets, generally financed by parties outside the university, intended to fund specified research and development activities.
Funding sources for these research budgets are:

A. **Israeli sources**
   University – the seven Israeli universities, including affiliated companies, volunteer organizations, and research institutes.
   Public – Government ministries, local governments, national institutions, the General Federation of Labor, etc. This category also includes publicly-owned corporations, as well as those owned by the General Federation of Labor.
   Private – the non-profit private sector, as well as the private business sector.
B. **Foreign sources**

Publication – Equivalent to an article published in a refereed scientific journal (see sections on sources for Chapter 8 earlier in this appendix).

Scientific field – This term appears in three different contexts in this section, and is determined differently in each context:

A. **for R&D expenditures** – expenditures are classified by the organizational unit where the research was carried out, regardless of the contents of the R&D activities. Organizational units are divided into fields as in Section 3.

B. **for publications of Israeli researchers** (Tables 1.11 and 8.4) – publications were sorted according to the subject classifications of the journals in which they were published, regardless of the contents of the article or the organizational unit to which the article's authors belong.

C. **for publications of university researchers** (Table 8.5) – as in R&D expenditures above.

Chapter 9 – Students and Degree Recipients Abroad

Israeli student abroad – a student bearing Israeli citizenship who is temporarily residing in a foreign country and who is studying in a post-secondary or higher education institution in that country (for qualifications of this definition, see the section on sources for Chapter 9 earlier in this appendix).

Israeli recipient of a U.S. doctorate – an Israeli citizen who resided in the U.S. with temporary or permanent resident status, and who received a doctoral degree from an American higher education institution.

Field of study – The data were adapted, as much as possible, to fit the classification system outlined in Section 3.

4. Price Indices of the Ordinary Budget of the Institutions of Higher Education Funded by the Planning and Budgeting Committee

The Planning and Budgeting Committee has developed a price index system for the purposes of budgeting the institutions that it funds and supervising their ordinary budgets.

This price index system was set up in 1984, and is computed using 1982-83 as the base year equaling 100.0.* The system is composed of three basic indices, each computed separately:

- index of expenses linked to various wage agreements (wage index)

* Since 1988/89, the basis has been updated to 1987/88 = 100.0. For the purposes of this publication, however, the system of price indices was reconstructed back to the 1982/83 basis.

– index of expenses linked to the Consumer Price Index (purchases index)
– index of expenses linked to the U.S. dollar exchange rate ($ index)

The indices are updated monthly in accordance with changes in the various areas.

The price indices derived from these basic indices are:
– the higher education expenditures index
– the PBC's direct participation index
– the PBC's earmarked and one-time participation index
– the index of income from tuition fees
– the index of income from donations
– the index of the institutions' other income

These indices are also computed on the basis of 1982/83 = 100.0, according to the following weighting schemes:

- **Higher education expenditures index** – from 1982/83 to 1987/88: wage index, 60%; purchases index, 20%; $ index, 20% (based on 1982/83).
  In 1987/88, according to a sample survey of the institutions, the weighting scheme was adjusted as follows: wage index, 58%; purchases index, 23%; $ index, 19%.
- **PBC's direct participation index** – from 1982/83: wage index, 80%; purchases index, 20% (based on 1982/83).
  Since April 1989, the index of PBC's direct participation has been linked entirely to the wage index.
- **PBC's earmarked and one-time participation index** – the PBC's earmarked participation is comprised of two parts: 1) budgets allocated to promote special topics at the institutions; and 2) matching allocations for institutions' endowment funds. The weighting scheme for this index is: $ index, two-thirds; purchases index, one-third. This index was also used to deflate one-time allocations.
- **Tuition fees index** – linked 100% to the Consumer Price Index (purchases index).
- **Index of institutions' other income** – $ index, two-thirds; purchases index, one-third. This index is identical to the index of PBC's earmarked and one-time participation.

The following table shows the various indices for the period from 1982/83 to 1991/92, based on 1982/83 = 100.0

	Wage Index	Purchases Index[1]	$ Index[2]	Higher Education Expenditure Index	PBC's Direct Participation Index	PBC's Earmarked Participation Index[3]
1982/83	100.0	100.0	100.0	100.0	100.0	100.0
1983/84	342.8	393.1	433.3	371.0	352.9	411.3
1984/85	1,385.5	1,944.5	2,259.8	1,672.2	1,497.3	2,058.4
1985/86	2,256.4	3,569.6	3,560.5	2,779.9	2,519.1	3,219.1
1986/87	2,729.7	4,298.6	3,769.4	3,251.4	3,043.5	3,586.0
1987/88	3,498.6	4,992.6	3,813.3	3,860.4	3,797.4	3,816.2
1988/89	4,334.8	5,961.2	4,362.4	4,709.0	4,651.9	4,462.4
1989/90	4,824.6	7,014.6	4,804.8	5,295.9	5,217.7	4,951.0
1990/91	6,147.1	8,342.6	5,254.7	6,489.4	6,649.3	5,644.8
1991/92	6,944.8	9,545.8	5,739.0	7,315.8	7,511.3	6,240.4
1992/93	8,148.3	10,524.4	6,585.5	8,442.8	8,817.6	7,176.7

1. Also the index of income from tuition fees.
2. Also the index of income from donations.
3. Also the index of the institutions' other income.